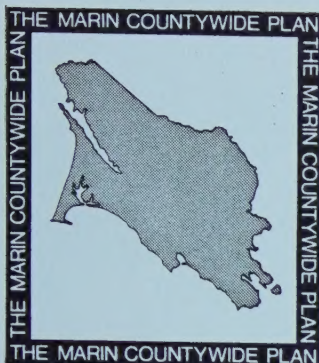


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THE MARIN COUNTYWIDE PLAN

COUNTYWIDE PLAN
UPDATE PROGRAM

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MARIN COUNTY PLANNING DEPARTMENT
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CONSULTANT: SEDWAY/COOKE
APRIL 1982

APPROVALS

PART 1. INTRODUCTION
PART 3. COMMUNITY DEVELOPMENT
PART 4. TRANSPORTATION
PART 5. PLANS FOR PLANNING AREAS

Board of Supervisors
Planning Commission

April 13, 1982
February 22, 1982

PART 2. ENVIRONMENTAL QUALITY

Initial Element

Board of Supervisors
Planning Commission

October 30, 1973
August 6, 1973

Bayfront Conservation Amendment

Board of Supervisors
Planning Commission

July 28, 1981
May 18, 1981

Stream Conservation Amendment

Board of Supervisors
Planning Commission

April 13, 1982
February 22, 1982

PART 6. HOUSING

Board of Supervisors
Planning Commission

June 26, 1984
May 21, 1984

PART 7. NOISE

Board of Supervisors
Planning Commission

October 14, 1975
September 22, 1975

PART 8. ENVIRONMENTAL HAZARDS

Board of Supervisors
Planning Commission

December 13, 1977
September 12, 1977

PART 9. ENERGY

Board of Supervisors
Planning Commission

December 16, 1980
November 17, 1980

PART 10. TRAILS

Board of Supervisors
Planning Commission

October 16, 1984
September 24, 1984



1982 MARIN COUNTYWIDE PLAN SUMMARY

What is the Plan and Why Was It Prepared?

The 1982 Marin Countywide Plan proposes actions by city and county governments, private organizations, and citizens to affirm the goals set in the 1973 plan and to meet new needs over the next two decades. Some sections are newly proposed for public review. Some have been adopted by the Board of Supervisors. Some are restated from the 1973 plan.

Major proposals in the plan include:

- Urban Service Area policies to encourage that when new development occurs it takes place in cities, and policies to encourage the annexation of urbanized unincorporated areas.
- Land use policies to encourage balanced communities with higher intensity, mixed uses, consistent with local plans, in built-up areas with services.
- A transportation system that emphasizes traffic management rather than capital investments and that includes a High Occupancy Vehicle Lane along Route 101 to serve central and north Marin.
- More specific conservation and development standards to protect bayside and streamside areas.
- Policies and actions to reduce Marin's use of nonrenewable energy by the year 2000.

An interjurisdictional plan, the Countywide Plan represents a cooperative effort by the 11 cities and the county to establish an overall framework and set of goals for countywide development. The cities have control over development decisions in their jurisdictions and the county in unincorporated areas; each city has its own plan.

The 1982 plan calls for completing the agenda set in the 1973 Countywide Plan, which was a turning point for the county. The 1973 plan established environmental quality as a primary concern in decision-making. It provided a base for continuing cooperative planning by the cities and the county. It called for a balance of hou-

sing, transportation, economic development and resource protection for the years 1970 through 1990.

The people of Marin and their city and county officials have accomplished much to achieve the 1973 plan's objectives: Open space purchases, growth management, agricultural preservation, land use and design controls, improved transbay bus service.

But, much remains to be done. Programs to produce affordable housing have been unable to keep pace with the market's upward spiral. The voters have not supported ballot measures to fund local transit, and traffic on Route 101 is badly congested in central and north Marin during peak periods.

Important new issues have arisen since 1973. The passage of Proposition 13 reduced property tax revenues and placed a premium on the efficient use of scarce public resources. The long-term effects of non-renewable energy supply shortages have become evident. These changes affect decisions about land use, development, and transportation.

These current issues - housing, transit, fiscal limits, energy - are closely tied to each other. Solving these problems will be essential to continued progress toward attainment of the basic environmental, social, and economic goals of the 1973 and 1982 plans.

The 1982 plan thus serves four basic purposes:

1. To take into account the changes that have occurred since 1973,
2. To make appropriate recommendations for the next two decades, 1980-2000,
3. To meet the latest State requirements for general plans,
4. To emphasize energy and fiscal issues that are not explicitly dealt with in the 1973 plan.

The plan re-asserts the three goals of the 1973 document and adds a fourth for energy:

COUNTYWIDE PLAN GOALS - 1982

- Goal 1: Discourage rapid or disruptive population growth, but encourage social and economic diversity within communities and in the County as a whole.
- Goal 2: Achieve greater economic balance for Marin, by increasing the number of jobs and the supply of housing for people who hold them.
- Goal 3: Achieve high quality in the natural and built environments, through a balanced system of transportation, land use, and open space.
- Goal 4: Achieve a sustainable energy future for Marin County by reducing total energy demand; and by replacing total dependence on non-renewable, imported energy resources with reliance on local, renewable energy resources.

What Is In the Plan?

The plan is organized into eight major parts, each of which includes background information, policies and implementation measures. Technical appendices and Environmental Impact Reports will be published separately.

Environmental Quality

New policies for protection of stream conservation areas in the unincorporated areas are proposed. These zones extend 100 feet from the top of stream banks in the Inland and Coastal Corridors and 50 feet in the City-Centered Corridor. Development and management standards would assure preservation of vegetation and wildlife, erosion and flood control, and public access where appropriate.

The Board of Supervisors adopted policies for protection to the Bayfront Conservation Zone in July, 1981. Other policies for environmental corridors, the built environment, open space, and recreation are restated from 1973 plan.

Community Development

Marin's population is projected to increase by about 50,000 between 1980 and 2000, to a total of 282,300. This estimate is a lower rate than that predicted in 1973, reflecting a smaller average household size. About 25,600 housing units and 21,200 jobs will be added, according to local plans. Growth will be concentrated in the Novato, Las Gallinas Valley, San Rafael and Richardson Bay planning areas.

The plan proposes policies consistent with local general plans that would create balanced communities which house and employ all income groups and which provide a full range of facilities and services. These communities would be formed by encouraging new development to take place in areas that have or could readily acquire transit and other services, by allowing mixed uses, and by making efficient use of existing developed areas through such means as providing higher densities where there are services.






A major economic development opportunity is the corridor east of Highway 101 from the Civic Center north through Hamilton Air Force Base. This area has great potential for innovative development of housing, jobs, transit, and energy conservation and should be the subject of detailed planning by the cities of San Rafael and Novato and the County. Here as elsewhere, the participation of the private sector in the provision of affordable housing and services will be important.

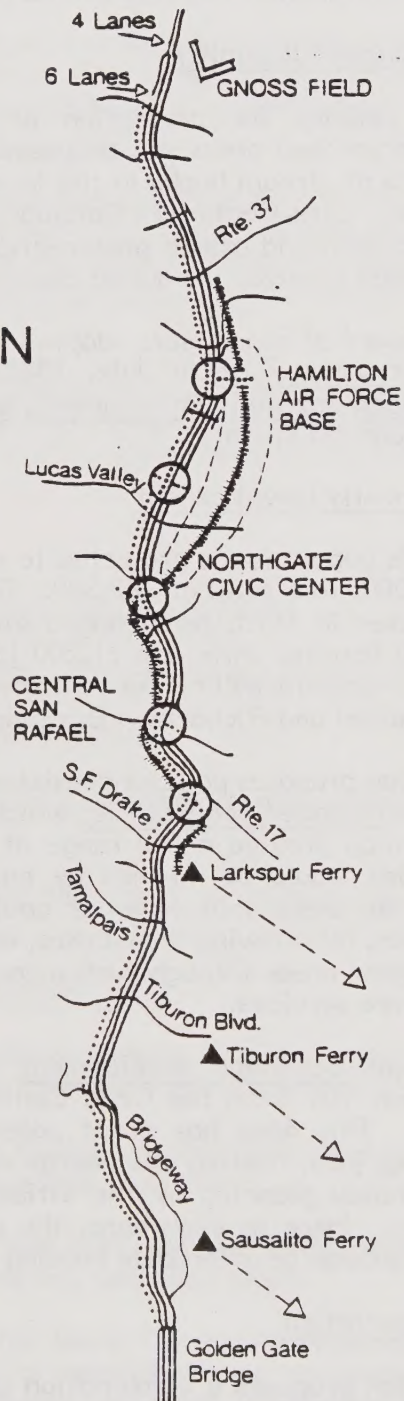
Transportation

The plan proposes a combination of improvements and traffic management techniques that will maintain a minimal level of mobility for the year 2000. These proposals recognize fiscal constraints, the land use policies of local general plans, and energy policies. Major elements of the transportation include: A high occupancy vehicle lane along Route

101, for buses, carpools and vanpools, serving central and north Marin; increased use of carpools; a one-third increase in trans-bay transit ridership; and expansion of local transit in accordance with the 1979 ballot measure. For West Marin recreational areas parking management and visitor information to encourage transit use are proposed, but no expansion of road capacity.

HIGHWAY 101 CORRIDOR PLAN

-  Mixed Traffic Lanes (6) *
-  High Occupancy Vehicle (HOV) Lane
-  Direct Access From Local Job Centers To HOV Lane
-  Northwestern Pacific Railroad Right Of Way To Be Preserved For Future Public Use
-  Area With High Potential For Energy Efficient New Development Program Focused On Railroad Right Of Way
- * Except between Central San Rafael and Northgate/ Civic Center, where an additional auxiliary lane is planned.



Plans for Planning Areas

The plan presents basic information for the eight planning areas into which the county was divided for the 1973 plan, six in the City-Centered Corridor plus the Inland and Coastal Corridors.

Policies for Urban Service Areas, developed in cooperation with the Local Agency Formation Commission (LAFCo), are a major addition to the 1982 plan. The basic intent is to encourage new urban development in the City-Centered Corridor to occur in cities, in locations where growth can be accommodated. Urban service area boundaries are proposed for each city, based on service capacity.

Within these areas that are still unincorporated, the County would refer all urban development applications to the city, which would indicate its intent to proceed with planning action and annexation. If the city is interested, it will intensify its efforts to annex the area. If annexation does not occur, it may be necessary for the County to process the application, in close consultation with the city and in accordance with the city's standards.

It will be necessary for the County to rezone some lands in urban service areas to assure that development requiring urban services will not be permitted until the city is willing and able to accommodate it. Cities should amend their general plans and pre-zone as required to cover unincorporated parts of their urban service areas. LAFCo should work toward early annexation in these areas.

Voter approval is required by law to annex inhabited unincorporated areas to cities. It will be essential for the cities, the County and LAFCo to work closely with citizens of unincorporated communities to determine their needs and concerns.

Possible changes in spheres of influence, which are larger areas representing a city's ultimate physical boundaries, will be subject to further review and action by LAFCo. The Strawberry community and the commercial area north of Sausalito are two examples.

Housing

The Housing Element, revised and adopted by the Board of Supervisors in 1984, is incorporated into the plan. It recommends a range of policies and programs for obtaining low, moderate and middle-income housing units. The element has been certified by the State as satisfying its statutory requirements, and it has provided a basis for the cities' work in revising their own housing elements.

Noise

The Noise Element, adopted by the Board of Supervisors in 1975, is incorporated into the plan. As required by State law, the element contains policies for permitted uses and special regulations for development in areas subject to noise problems, particularly along Route 101 and near Gross Field.

Environmental Hazards

This section, adopted by the Board in 1977, contains information on areas of the county subject to seismic, geologic, fire and flood

hazards. It sets forth policies for permitted uses and special protective measures for these areas.

Energy

The Energy Element, adopted by the Board in 1980 proposes policies and programs that will meet the Countywide Plan's goal of reducing the use of non-renewable energy by 50 percent by the year 2000.

Trails

The Trails Element was adopted in 1984 and calls for the preservation of some 220 miles of hiking, equestrian and bicycle trails throughout the County to expand the existing trails network of some 314 miles of trails.

What Are the Next Steps for the Countywide Plan?

The Countywide Plan Advisory Committee, consisting of one representative of each City Council and one member of the Board of Supervisors, has been reviewing and revising the plan since 1979. The Committee has given the current version conceptual approval, subject to public review, and hearings. A series of community meetings are typically held to obtain public comment on the plan elements before formal hearings are held by the County Planning Commission and Board of Supervisors. Many of the cities also hold hearings on County policy as well.

After adoption of the plan amendments by the Board of Supervisors, the County will initiate implementation measures affecting unincorporated areas. Subsequently, the plan elements are revised as necessary to keep current and to respond to important changes, with the policy guidance of the Countywide Plan Advisory Committee. Each revision must go through the same public hearing process.

How Can You Help Improve the Plan?

It would be most helpful if the public would read the new parts of the plan and suggest changes or additions. The following questions are especially important:

- Should the county, the cities, and LAFCo adopt and carry out Urban Service Area policies, to encourage new urban development to take place in cities where services can be provided?
- Should a balanced community policy be pursued, encouraging a wider range and higher intensity of uses in areas with transit and other services?
- Should a High Occupancy Vehicle lane be developed in central and north Marin, along Route 101?
- Should Marin continue to seek funds for expansion of local transit?
- Should new clearer, more detailed streamside protection policies be adopted for unincorporated areas?

Comments and questions on the plan should be directed to the Marin County Planning Department, Room 308, Civic Center, San Rafael, CA 94903. Telephone: (415) 499-6269.

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PART 7. NOISE ELEMENT

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PART 8. ENVIRONMENTAL HAZARDS ELEMENT

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PART 9. ENERGY ELEMENT

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PART 10. TRAILS ELEMENT

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I. PURPOSE OF THE COUNTYWIDE PLAN

The Marin Countywide Plan is intended to be a consensus statement of the residents of Marin County on their desires for the future of the community. It consists of:

1. Basic goals and an overall framework to guide future growth and development; and
2. Specific policies covering the various aspects of growth and development, each supported by a researched and documented rationale, and appropriate implementation measures.

It is anticipated that the Plan will be regularly revised (every five years according to County policy) in order to reflect changes in population, economic and development trends, and in the public consensus on goals and policies.

The Plan is unique in that it is an interjurisdictional effort. The County and cities of Marin have worked together through advisory committees to discuss countywide issues. Information presented by County staff and local committee members have been used to prepare this document which is countywide in scope, yet sensitive to local concerns and issues. Cities' general plans have been summarized and reviewed as part of this process.

An interjurisdictional plan, it establishes an overall framework and set of goals for countywide development, while cities retain control over the specific development decisions in their jurisdictions. The County retains control of specific development decisions in the unincorporated areas. Thus, the Countywide Plan is advisory to the cities but has regulatory effect in the unincorporated areas. The cities and the County have the option of adopting each other's general plans (or portions thereof), respectively. Frequently a city will adopt a County element which is sufficiently detailed in information and provides policies and programs acceptable to the city. A city may also use the Countywide Plan or portions thereof as a model for revising its own general plan elements. Conversely, the County may adopt a city's general plan or portions thereof to provide more detailed guidance in urbanized areas.

Other Functions of the Plan

The California Government Code (Section 65300) requires the establishment of a planning agency to develop and maintain a city or county general plan. The general plan must be comprehensive, long-term, and internally consistent. Although it may be organized in the manner best suited to the jurisdiction, it must address the issues specified in state law. The Countywide Plan is the County's response to these legal requirements. | - |

The Plan is a document wherein the concerns, ideas, and values of the community are expressed. The concepts, emphasis, and organization of the Plan record the priorities of its makers. The Plan is thus a guidebook for future policy decisions. Recommended Plan policies are sufficiently general to allow broad interpretation yet specific enough to direct a course of action. Almost no one wants a plan that is "cast in stone" and provides no flexibility for individual decisions. Yet the Plan should provide the framework, if not the broad model, for each decision. The success of the Plan can only be evaluated in terms of how well it enables people who are involved in Marin's future to make intelligent and informed decisions.

The Plan is an informational document presenting data and analyses that will help local governments analyze and respond to problems and conditions in the community in the years to come. As it includes a composite discussion of community characteristics and direction, it serves to detail background for ordinances, financing strategies, and implementation measures that follow.

II. COUNTYWIDE GOALS

The Marin Countywide Plan, adopted by the City-County Planning Council and the Board of Supervisors in 1973, set a new policy direction of balanced growth and environmental quality. The 1973 Countywide Plan was a breakthrough in local planning both in the interjurisdictional nature of the city/county cooperation that went into developing it and in the emphasis on environmental quality.

Today, the goals of the Plan are still valid. Even though some of the earlier suggested implementation techniques have not been accomplished, the goals have served as effective guides for specific plans and implementation programs including local and community general plans, zoning and growth management ordinances, open space and housing programs, and numerous minor codes and standards.

The 1973 Plan now needs evaluation and revision for the following reasons:

- o To take into account the changes that have occurred since 1973.
- o To make appropriate recommendations for the next two decades, 1980-2000.
- o To meet the latest state requirements for general plans.
- o To emphasize energy and fiscal issues which were not explicitly dealt with in the 1973 Plan.

The 1982 Plan maintains the basic principles of the 1973 Plan: its goals, its interjurisdictional nature, and its emphasis on protection of Marin County's unique characteristics and quality of life. In order to meet the future challenges brought about by a diminishing supply of energy resources, the 1982 Plan includes a fourth goal in addition to the three expressed in the 1973 Plan. Goal 4 brings a new perspective to the direction of the Plan. Strong local involvement both in energy conservation and in renewable resource development is indicated here and detailed further in Part 9, the energy element.

COUNTYWIDE PLAN GOALS - 1982

- Goal 1: Discourage rapid or disruptive population growth, but encourage social and economic diversity within communities and in the County as a whole.
- Goal 2: Achieve greater economic balance for Marin, by increasing the number of jobs and the supply of housing for people who hold them.
- Goal 3: Achieve high quality in the natural and built environments, through a balanced system of transportation, land use, and open space.
- Goal 4: Achieve a sustainable energy future for Marin County by reducing total energy demand; and by replacing substantial dependence on nonrenewable, imported energy resources with greater reliance on local, renewable energy resources.
-

III. ORGANIZATION OF THE PLAN

The Marin Countywide Plan is organized into eight separate elements. These elements incorporate the general plan elements required by the California State Government Code (Section 65300) as shown below.

<u>Marin Countywide Plan Elements</u>	<u>State-Mandated General Plan Elements</u>
Environmental Quality	Conservation; Open Space
Community Development	Land Use
Transportation	Circulation; Scenic Highways
Plans for Planning Areas	(Optional)
Housing	Housing
Noise	Noise
Environmental Hazards	Seismic Safety; Safety
Energy	(Optional)
Trails	(Optional)

With the current revision, a new, streamlined format is proposed. The format, essentially, highlights policies and groups them together in logical places with the supporting rationale and implementation measures immediately thereafter, where appropriate. This structure has been developed for easy reference as follows:

PLAN ELEMENT

A. Policy Group (such as Growth Rate)

A-1 First Policy

Rationale:

Implementation:

A-2 Second Policy

Rationale:

Implementation:

As other elements are revised (or added), they will also be structured according to this format.

PART 2. ENVIRONMENTAL QUALITY

I. BACKGROUND

A. ENVIRONMENTAL CORRIDORS

For purposes of environmental analysis, the Countywide Plan divides Marin into three corridors (see Figure 2.1) where open space and development issues are different: the City-Centered Corridor, Inland Rural Corridor, and Coastal Recreation Corridor. A major policy of the Countywide Plan is that urban development will be concentrated in the City-Centered Corridor so that the rest of the County can remain as open as possible, in accordance with the Association of Bay Area Governments' Regional Plan.

City-Centered Corridor

Most of Marin's people live here, in a series of bayfront towns around inlets and peninsulas, separated by ridges. The City-Centered Corridor consists of three main environmental zones, which affect the kind of development that is appropriate.

- The bay shore, consisting of tidelands, marshes, and flat land. Some of this zone has remained in its natural state, but there has been extensive land fill for housing, commerce and industry.
- Bayside plains, generally semi-circular, separated by ridges extending into the bay. Most of Marin's development has occurred here.
- Bayside foothills, knolls and ridges, generally heavily wooded on the north slope and grassy on the south slope. This area is experiencing the most pressure, as development moves up out of the bayside plains.

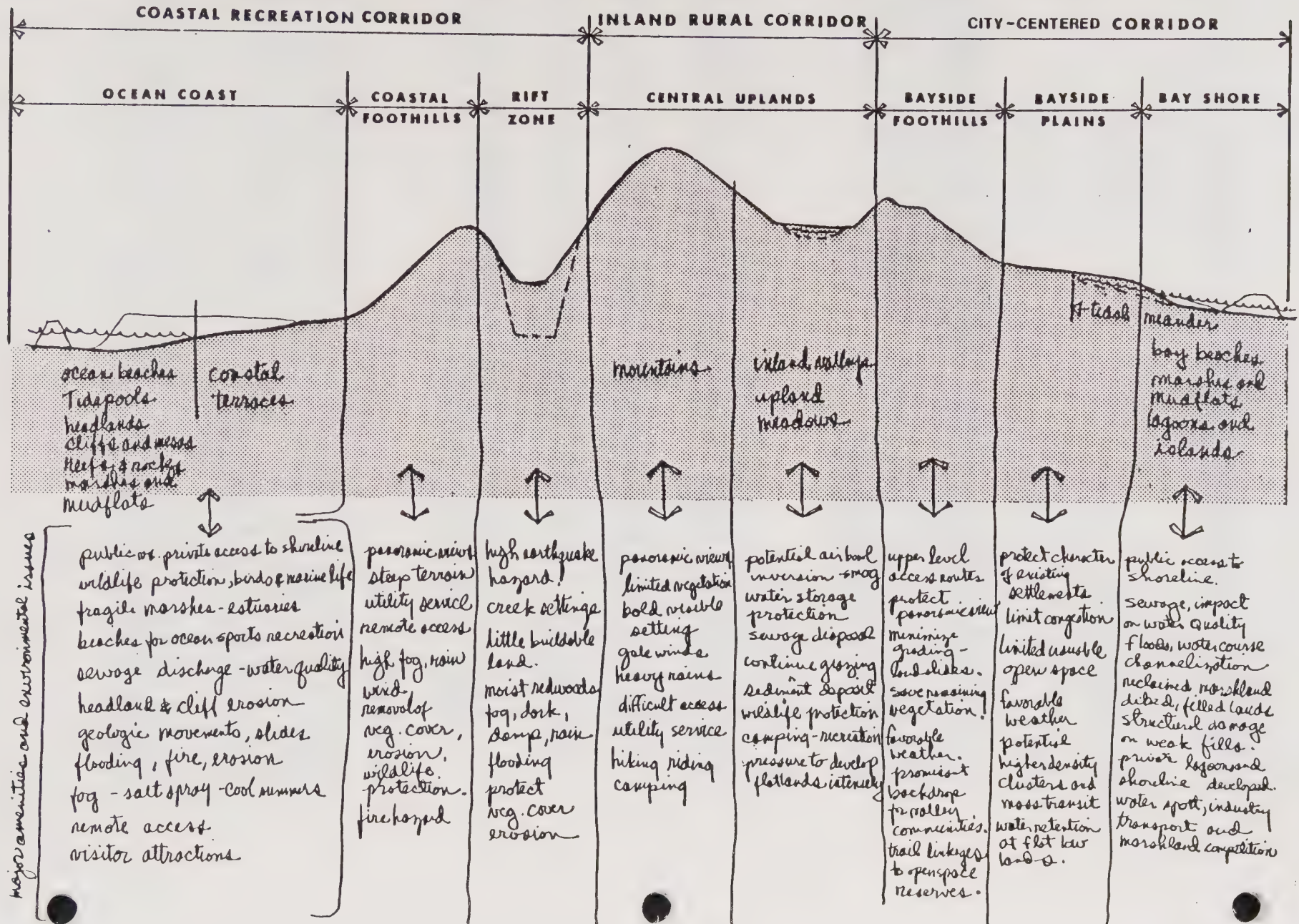
Inland Rural Corridor

Agriculture continues to function as an important part of Marin's economy, and most of the land still used for this purpose is in the Inland Rural Corridor. Two environmental zones extend through this corridor: the belt of inland valley and upland meadows, where farms, ranches, rural villages, and water reserves are located; and the County's central range of mountains, generally with access too difficult for any but recreational uses.

Dairying remains the leading agricultural activity in Marin, although it has been declining because of increasing costs, sluggish demand, and rising land values. Livestock, poultry, and horsebreeding operations have been growing and now represent the second most important farming operation.

Figure 2.1

TYPICAL CROSS SECTION THROUGH COUNTY SHOWING ENVIRONMENTAL ZONES



Much of this corridor is now in agricultural preserves, lands whose owners have agreed that they will leave the land undeveloped, in return for the County assessing its value based on agricultural uses only. State law, the Williamson Act, requires that areas including agricultural preserves be zoned for uses that are compatible with agriculture. The County has rezoned the rural portions of central and western Marin for agricultural purposes, with a prevailing residential density of one unit per 60 acres.

Coastal Recreation Corridor

Marin's ocean coast is a rugged, dramatic meeting of land and sea that attracts visitors from throughout the world. Much of the corridor has been acquired by public agencies for recreational purposes — Point Reyes National Seashore, the Golden Gate National Recreation Area, and the Mount Tamalpais, Stinson Beach, and Tomales Bay State Parks.

Detailed findings and policies for this corridor are included in the Local Coastal Program, adapted by the Board of Supervisors and Coastal Commission.

B. CONSERVATION ZONES

The Countywide Plan designates specific conservation zones where special development restrictions and standards must be established to prevent environmental deterioration. All of the conservation zone areas are lands with water access, a scarce natural resource which must be protected. Different types of restrictions and review procedures have been adopted for each zone to take into account their respective environmental characteristics. These regulations apply over and above the review procedures of the Environmental Protection Committee and of the California Environmental Quality Act.

Stream and Creekside Conservation Zones

This zone consists of buffer zones along all natural watercourses shown as a blue line on the most recent appropriate USGS quad sheet, or supporting riparian vegetation for a length of 100 feet or more. The zones consist of the watercourse itself between the tops of the banks and a strip of land extending laterally outward from the top of the bank, to a width of 100 feet in the Coastal Recreation and Inland Rural Corridors and to a width of 50 feet in the City-Centered Corridor.

Coastal Zone

This area consists of the coastal zone along the western edge of Marin County, extending 1000 yards inland from the shoreline. The Marin County Local Coastal Plan, as approved by the California Coastal Commission, contains the plan for this area, along with policies and standards for future land use, development, and activities.

Bayfront Conservation Zone

The Bayfront Conservation Zone is composed of three subzones (see Figures 2.2 and 2.3):

- o The Tidelands Subzone which includes all areas subject to tidal action (including salt marshes, beaches, rocky shorelines, and mudflats) and all open water areas. It also includes all the contiguous and adjacent land up to the line of highest tidal action (as applied by BCDC in accordance with the McAteer-Petris Act); or the landward dike which circumscribes tidal inflow; or the nearest greater-than-50% developed urban area; or publicly-maintained road; whichever of these bounds the largest area of tidal marsh and channels. This subzone further includes a 100-foot band landward on undeveloped land, within which a flexible buffer could be delineated on a case-by-case basis. The purpose of this subzone is to define those areas which should be left in their natural state because of their biological importance to the estuarine ecosystem.
- o The Diked Bay Marshlands and Agricultural Subzone which includes all historic bay marshlands (as determined by Nichols and Wright (1971)). These former marshlands have been diked off from tidal action and in many cases filled or partially filled, and/or converted to agricultural uses, airports, urban development, and in a few instances lagoons with residences. Residential and industrial areas which are at least 50% developed on already filled lands are excluded.

The purpose of this subzone is to define those areas in which there are similar subsurface or surface conditions; areas which are close to and functionally related to tidal lands; areas in which it is possible to foster the continuation of agriculture; or, if that ceases, to consider the feasibility of returning undeveloped, unfilled former marshes to a more productive wildlife habitat by restoration. This subzone includes a 100-foot band landward on undeveloped lands, within which a flexible buffer can be delineated on a case-by-case basis.

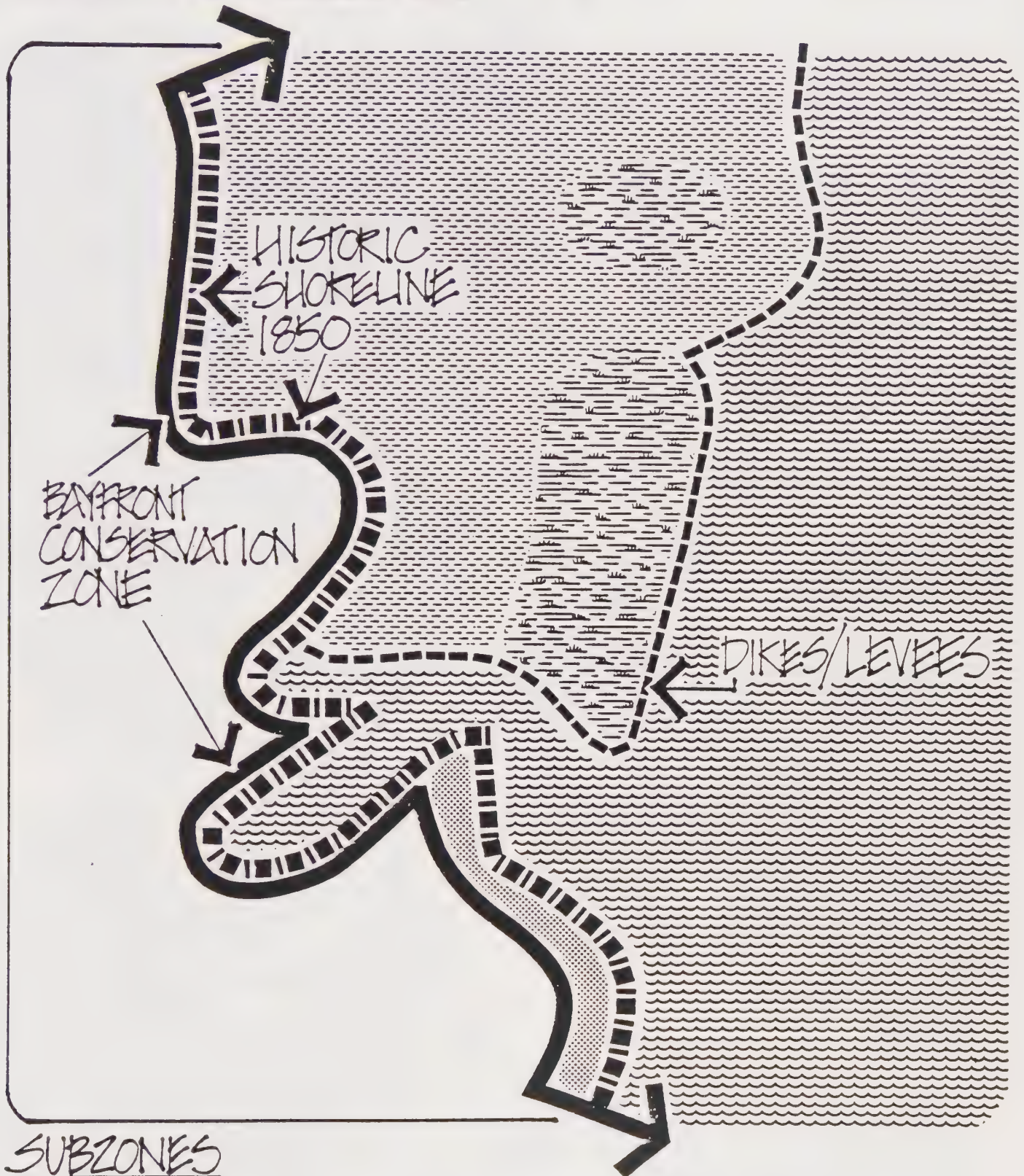
- o The Shoreline Subzone which includes a few shoreline areas where main public thoroughfares such as Highway 101, Paradise Drive, and San Pedro Road follow the coastline and promote visual access to the bay. The subzone extends from the bayside of the roadway to the Tidelands Subzone. The purpose of this subzone is to define a viewshed and promote conservation of coastal habitats such as bluff vegetation and wildlife nesting/resting areas.

C. THE BUILT ENVIRONMENT



The man-made setting plays as important a role as the natural environment in the quality of life in Marin, especially in the City-Centered Corridor, where more than 90 percent of Marin's citizens live. It is critical to relate buildings and other facilities such as transportation lines to their natural settings in both rural and urban Marin, through careful siting and use of materials.

Figure 2.2

TYPICAL AREA OF BAYFRONT CONSERVATION ZONE AND SUBZONES



SUBZONES

-  TIDELANDS
ALL AREAS SUBJECT TO TIDAL INFLUENCE
-  SCENIC SHORELINE
VISUAL ACCESS TO THE BAY

-  DIKED BAY MARSHLANDS
-  DRY LANDS
-  WET LANDS

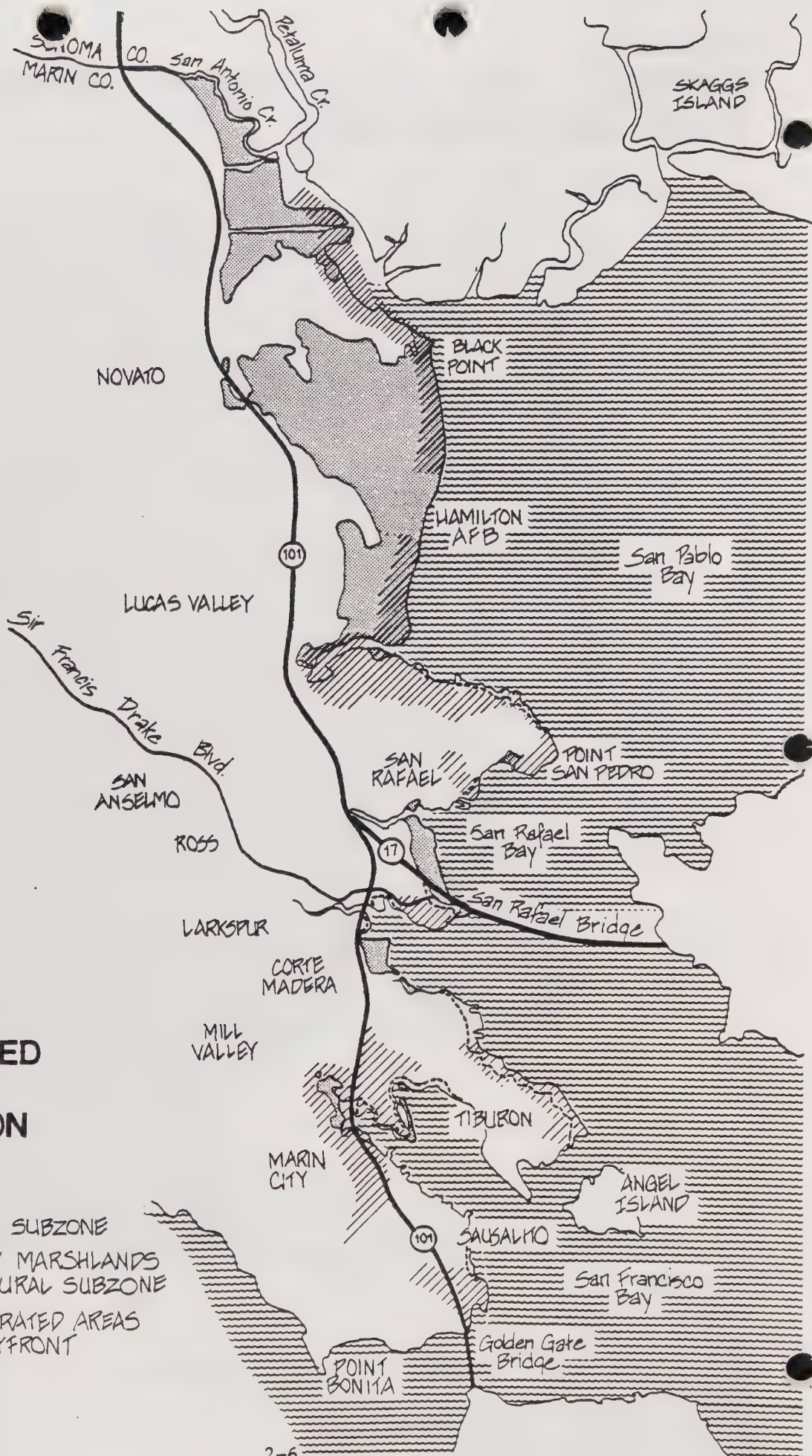


Figure 2.3
RECOMMENDED
BAYFRONT
CONSERVATION
ZONES

- SHORELINE SUBZONE
- DIKED BAY MARSHLANDS & AGRICULTURAL SUBZONE
- ▨ UNINCORPORATED AREAS ALONG BAYFRONT

D. SEISMIC SAFETY

State law requires general plans to include a seismic safety element "consisting of an identification and appraisal of seismic hazards such as susceptibility to surface ruptures from faulting, to ground shaking, to ground failures, or to effects of seismically induced waves such as tsunamis or seiches."

Most of Marin County is sandwiched between two major active faults zones, the San Andreas and the Hayward, both of which have generated great earthquakes during the 200 years of the recorded history of the area.

There are many factors that determine structural damage from earthquakes, some more important than proximity to the epicenter. Different geological materials react differently to earthquakes, depending on such factors as density, cohesiveness, and water content. In general, the greatest earthquake vibrations will occur within the superficial unconsolidated materials—bay mud, artificial fill, landslide deposits, alluvium, and colluvium. The dangers of landslide-prone areas will be greatly multiplied if a great earthquake occurs during a period of saturation.

While the frequency of major earthquakes cannot be reliably predicted now, studies by the California Division of Mines and Geology indicate that at least one or two per century can be anticipated.

To reduce potential damage from future earthquakes, the Countywide Plan recommends that within designated fault zones all concentrated or hazardous uses be prohibited; including schools, hospitals, other institutions, high density housing, and reservoirs.

In addition, steps should be taken as soon as possible to minimize earthquake damage from existing buildings. Deficient structures in fault zones should be amortized or rehabilitated, and special methods should be adopted to assure earthquake-resistant construction of critical buildings such as hospitals, schools, high density buildings, bridges, overpasses, and dams.

Further studies are needed to fulfill state requirements for a seismic safety element. This will include determining the extent of seismic risks that are acceptable to the County, presenting contingency plans (developed by the Marin Office of Emergency Services), identifying natural and man-made hazards, and recommending detailed policies for minimizing earthquake damage. Many of the findings from the continuing study of geologic hazards in Marin will be applicable to seismic safety planning.

E. SAFETY

Soil conditions, and resulting geologic hazards, usually vary greatly within one development site, and structures must be located and designed accordingly. The map in Figure 2.4 shows that approximately 250 square miles fall within the "most abundant" landslide categories. This map provides only a rough picture of general differences. Final determination of safety hazards must be based on thorough field checks of the underlying soil and rock, slopes, and potential effects of faults.

Figure 2.4. *Estimated Relative Abundance Of
Landslides In Marin County*



SOURCE: "Estimated Relative Abundance of Landslides in the San Francisco Bay Region, California" by Dorothy H. Radbruch and Carl M. Wentworth - 1971

Published by United States Geological Survey in cooperation with the United States Department of Housing and Urban Development.

F. RECREATION

Marin's extensive recreation facilities contribute to the quality of life as well as the economic base of the County. Table 2.2 indicates the various types of facilities operated by federal, state, county, city and district governments and by private organizations.

Generally, federal and state governments will continue to finance and operate the large facilities, mainly in the Coastal Recreation Corridor, that attract people from outside the County.

The County Parks and Recreation Department and Marin Municipal Water District provide facilities serving people from beyond the immediate local area. The county department also acquires and maintains open space lands designated as of county-wide importance in this plan. Cities and recreation districts will continue to provide parks, playgrounds, playfields, and other facilities of a smaller scale and serving local requirements.

II. POLICIES

A. COUNTYWIDE FRAMEWORK

- A-1 The Countywide Plan designates for permanent preservation open space in the following categories:

Resource Production: Agricultural, timber, fishing areas, sand and gravel deposits.

Resource Preservation: Water edges, watersheds, tidal areas, wildlife reserves, marshes, mudflats.

Scenic: Greenbelts, separators, open land, forests, grasslands, views trails.

Safety: Geologic risk areas, floodplains, noise areas, dikes, fire hazard areas.

Recreation: Public parks, trails, water sports areas, commercial recreation (golf courses, motels, stables).

- A-2 In the City-Centered Corridor the Marin County Open Space District has established the following criteria for priority selections.

Criteria

- o Projects must be identified in the Open Space Element of the Marin Countywide Plan or other adopted general or specific plan.
- o Projects should have the general support of the local jurisdictions within their sphere of influence.

TABLE 2.2

TYPES OF RECREATION FACILITIES IN MARIN COUNTY

<u>Responsible Agency</u>	<u>City-Centered Corridor</u>	<u>Inland Rural Corridor</u>	<u>Coastal Recreation Corridor</u>
Federal	--	Muir Woods National Monument	Pt. Reyes Nat'l Seashore, Golden Gate Nat'l Rec. Area: beaches, camping, trails, outdoor education, wilderness preservation, picnicking.
State	Angel Island Park: boating, trails, picnicking, beaches.	Samuel Taylor and Mt. Tam Parks: camping, trails, picnicking, outdoor education.	Stinson Beach, Tomales Bay Parks: beaches, picnicking.
County Parks & Recreation Department	Beach parks, marinas, upland parks, wetland and botanical reserves, trails.	Trails, stream reserves, reservoir parks: fishing, picnicking.	Beach parks, marinas, trails, wetland and botanical reserves, trails.
Water District Lands	--	Watershed reserves: camping, trails, fishing, picnicking, bike paths.	--
Local: Cities and Recreation Districts.	Community parks, playgrounds, tot lots, swimming pools, indoor facilities, athletic fields, golf, tennis, bike paths, historic landmarks.	--	--
Commercial Firms	Boating, swimming, golf, sports arenas, indoor recreation, tourist facilities, stables.	Golf, tourist facilities, stables.	Tourist facilities, boating, stables.

- o Acquisition of lands should be undertaken only for projects of district-wide significance.

Priority Selection

- o Ridge tops will be relatively more important than stream beds and shorelines because they play a much more obvious role in shaping the development of the County.
 - o Areas under immediate threat of development or irreversible damage will be given high priority.
 - o The visual or ecological importance of the area in the County will have significance.
 - o Local contributions in cash, land areas, or land use regulations will be considered but are not essential.
 - o Projects which are contiguous and which will extend their usefulness to existing open space preserved areas are important.
 - o Attractive purchase considerations and conditions will be significant.
 - o Adoption of the Open Space Element of the Countywide Plan by the jurisdiction involved will be significant, but not mandatory.
- A-3 Marin County will establish specific procedures for reviewing public and private actions that significantly affect the quality of the environment throughout the County, in accordance with the characteristics of each proposed action and each potential location.
- A-4 Air, water, and noise pollution shall be prevented or minimized.
- A-5 Radioactive, chemical, and biological health hazards to man or wildlife shall not be created, and existing levels shall be reduced.
- A-6 Agricultural lands shall be preserved and soil capability shall be maintained. Premature subdivision of agricultural lands shall be prevented.
- A-7 No operation shall cause irreversible damage or more than minimum reversible change to natural hydrological and biological processes.
- A-8 Streams, estuaries, marshes, bays, and tidelands shall be maintained in their natural state.
- A-9 Unique geological, ecological, archaeologic, and historic sites shall be protected. Significant natural features shall be included for preservation in their natural state and in an appropriate setting in any design or plan.
- A-10 A diversity and abundance of wildlife and marine life shall be maintained. Vegetation and animal habitats shall be preserved wherever possible.
- A-11 Construction and operations shall be located and designed to avoid or minimize the hazards from earthquake, erosion, landslides, floods, fire, and accidents.

- A-12 Adequate parks, recreation facilities, and open space shall be provided. Appropriate public access shall be established.
- A-13 Man-made environments, where people spend most of their time, shall be healthful, safe, quiet, and of good design both functionally and aesthetically.
- A-14 Projects shall not cause significant adverse impacts on water supply, fire protection, waste disposal, schools, traffic and circulation, or other services and facilities, or on the financial or social environment of the community.
- A-15 Water supply, flood control, wastewater and solid waste disposal, soil conservation, open space preservation, and natural resource extraction shall be coordinated to create the greatest public benefit and the least degree of environmental damage.
- A-16 Visual qualities and view potential of both natural and man-made settings shall be an equivalent consideration with other factors in any project or operation review. Tree-cutting and damage shall be avoided wherever possible.
- A-17 Resource use shall be the minimum necessary. Recyclable and biodegradable materials shall be utilized, and used materials shall be recycled or reused whenever possible.
- A-18 Rapid or disruptive population and economic growth shall be prevented.
- A-19 A Countywide trail system shall be provided not only for recreational purposes but also to give the public alternative transportation routes and methods and to lessen reliance on automobile use and new road construction, which may be detrimental to the environment.
- A-20 Park and open space areas should be made available to and usable by all segments of society, including people with disabilities.
- A-21 The planting of aggressive exotic plants such as broom and pampas grass should be discouraged in any development over which the County has review authority.

B. STREAM CONSERVATION AREAS

Because of varying policies regarding Stream Conservation Areas, it is again noted that the following recommendations apply only in the unincorporated portions of the County. Cities and towns with similar environmentally sensitive areas may elect to prepare their own conservation guidelines, or adopt the County's if appropriate.

General Policies

- B-1.1 Riparian systems, streams and their riparian and woodland habitat are irreplaceable, and should be officially recognized and protected as essential environmental resources, because of their values for erosion control, water quality, fisheries production, aesthetics and recreation.

- B-1.2 All perennial and intermittent streams, which are defined as natural watercourses shown as solid or dashed blue lines on the most recent appropriate USGS quad sheet, should be subject to these stream and creekside protection policies. A perennial stream is further defined as a watercourse that flows throughout the year (except for infrequent or extended periods of drought), although surface water flow may be temporarily discontinuous in some reaches of the channel such as between pools. An intermittent stream is further defined as a watercourse that flows during the wet season, continues to flow after the period of precipitation, and ceases surface flow during at least part of the dry season. An ephemeral watercourse, which carries only surface runoff and flows during and immediately after periods of precipitation, should be subject to these policies if it supports riparian vegetation for a length of 100 feet or more.
- B-1.3 A Stream Conservation Area (SCA) should be designated along all such streams, to consist of the watercourse itself and surrounding banks on both sides up to the high water mark and a strip of land extending laterally outward from the top of both banks, to a width of 100 feet on each side in the Coastal Recreation and Inland Rural Corridors and to a width of 50 feet on each side in the City-Centered Corridor. Where large tracts of land in the City-Centered Corridor are proposed for development, the 100-foot buffer should be applied, where consistent with legal requirements, and other planning and environmental goals. In the Coastal Recreation and Inland Rural Corridors, the zone should be extended if necessary to include an area 50 feet landward from the edge of riparian vegetation.
- B-1.4 The following uses are permitted in the SCA by development permits, provided these uses are allowed by the underlying zoning: all currently existing structures and uses including reconstruction and repairs, necessary water supply projects; flood control projects; developments to improve fish and wildlife habitat; grazing of livestock and other agricultural uses; maintenance of water channels for erosion control and other purposes; road and utility line crossings; water monitoring installations; trails.
- B-1.5 The following new uses are prohibited in the SCA: roads and utility lines, except at crossings; confinement of livestock, dumping or disposal of refuse, use of motorized recreational vehicles and any structural improvement (excluding repairs) other than those identified in Policy B-1.4, including residences, barns, and storage buildings, unless allowed by a development permit in Policy B-1.6.
- B-1.6 Other uses may be allowed in the SCA by development permits, provided these uses are allowed in the underlying zoning, on existing parcels that fall entirely within the zone or on existing parcels where it can be conclusively demonstrated that development on any other part of the parcel would have a more adverse effect on water quality or other environmental impacts. Such development should conform to all policies for SCA's.
- B-1.7 All concerned agencies should take aesthetic, scenic, environmental and recreational benefits into full consideration when computing costs of alternatives for modifications of streams. (It should be noted that State law requires a permit from the Department of Fish and Game for the modification of any stream bed.)

Preservation of Existing and Native Vegetation Policies

- B-2.1 The retention of the natural vegetation on a SCA should be encouraged in order to realize many benefits, such as soil erosion prevention, stream, shade, etc. When vegetation must be removed and soil disturbed within the SCA, the area should be reseeded or replanted with native plants of the habitat as soon as possible removing broom and other aggressive exotic plants, so as to restore the vegetative cover.
- B-2.2 Minimum disturbance should be made of vegetation within the SCA, especially those trees and shrubs providing shade and stability for the streamcourse. This does not imply that tree growth will not be cleared from the stream channel when it unduly restricts flood flows.
- B-2.3 Trees and shrubs to be planted along watercourses should include a variety of species that would naturally grow in or near the creek. Generally, exotic trees should be avoided.
- B-2.4 Modification of natural channels within SCA's for flood control, etc., should be done in a manner that retains and protects the vegetation forming ground cover and shade. Special attention should be given to the protection of riparian vegetation.

Fish and Wildlife Protection and Enhancement Policies

- B-3.1 SCA's are the most important land areas for wildlife, possessing greater numbers and variety than any other area. The value of SCA's for this purpose is therefore recognized. Fishery resources are directly dependent upon the protection of SCA's to provide quality aquatic habitats. A system of wildlife habitat areas representative of Marin County's floral and faunal streamside communities should therefore, be established and permanently maintained. Human use of these areas should be restricted as necessary to protect these communities. However, designation of SCA's shall not in any manner authorize trespass upon private property, or increase the right of public agencies to gain access to private property.
- B-3.2 A system of monitoring SCA's should be established to assure the protection of vegetation, soils and wildlife habitat along streams.
- B-3.3 Before any stream alterations are permitted, the minimum water flows necessary to protect fish habitats, water quality, riparian vegetation, groundwater recharge areas, and downstream users should be determined in conjunction with the State Department of Fish and Game and the Division of Water Rights of the State Water Resources Control Board.
- B-3.4 When a fish or other wildlife resource may be substantially affected by development in this zone, modifications and mitigations should be required in the project, to be determined in consultation with the State Department of Fish and Game.
- B-3.5 Projects and stream management programs which improve the opportunity for fishing and enhance the abundance of sport fish should be encouraged and supported.

Erosion Control Policies

- B-4.1 Soil disturbance should be discouraged within the SCA. Where absolutely necessary it should be limited to the smallest surface area and volume of soil practical and for the shortest practical length of time.
- B-4.2 Surface runoff rates in excess of pre-development levels should be kept to an absolute minimum. Runoff should be retained on-site and released at pre-development rates, unless to do so creates greater problems than releasing it.
- B-4.3 On-site facilities for the retention of sediments produced by development should be provided during construction and if necessary upon project completion, and continuing maintenance of these facilities should be required.
- B-4.4 New roads and roadfill slopes should be located outside the SCA, except at stream crossings. No spoil from road construction should be deposited within the SCA. At road crossings in the SCA's, special effort should be taken to stabilize soil surfaces.
- B-4.5 Filling, grading, excavating, obstructing the flow, or altering the bed or banks of the stream channel and riparian system should be allowed only under emergency conditions or where no reasonable alternative is available, by permit granted by the Environmental Protection Committee, which should include possible mitigation measures.
- B-4.6 Development work adjacent to and affecting SCA's should be done during the dry season only, except for emergency repairs. Disturbed surfaces should be stabilized and replanted, and areas where woody vegetation has been removed should be replanted with suitable species before the beginning of the rainy season.

Use and Aesthetics Policies

- B-5.1 Uses and development within SCA's should serve to enhance the appearance and usability of the creeks by preserving visual access, and coordinating site development. The County should work in close cooperation with the flood control and water districts in the design and choice of materials for the construction and alterations within the SCA's.
- B-5.2 Public access to the creeks which run through lands in public ownership should be encouraged and improved where feasible by means of pathways, access points, and bridges. Placement of streamside trails should diverge from the stream course or lead to a viewpoint in order to protect streamside wildlife corridors. Additional public lands should be added adjacent to streams where possible to make resources more accessible and usable for passive recreation.
- B-5.3 Damaged portions of SCA's should wherever possible be restored to their natural state. Portions of the channels that have been significantly altered for flood control have potential for urban open space uses as landscaped areas and paths.

Management Policies

- B-6.1 Water resources should be managed in a systematic manner that is sensitive to natural capacities, ecological impacts, and equitable consideration of the many water-related needs of the County.
- B-6.2 High priority should be given to the protection of watersheds, aquifer-recharge areas, and natural drainage systems in any consideration of land use.
- B-6.3 The cumulative effect of upstream development on downstream land uses should be considered. Development fees, standards, and other measures to mitigate downstream impact should be considered.
- B-6.4 Water impoundment areas should have marginal protection areas and should be protected and maintained for their water supply and for their environmental and recreational values.
- B-6.5 Water quality should be maintained or enhanced to allow the continued environmental health of natural waterway habitats.
- B-6.6 The use of streams and surrounding lands for educational purposes should be encouraged.
- B-6.7 Streams should be incorporated into development plans for sites abutting the waterways instead of being fenced off, except where safety requirements warrant otherwise.
- B-6.8 Land divisions should be reviewed for size of parcels and property line locations relative to creeks to allow management of the creek by one property owner, to the greatest extent possible.
- B-6.9 Any agency or individual responsible for management of SCA's should undertake the responsibility for implementation of all SCA policies.

Flood Control Policies

- B-7.1 An ordinance for floodplain management in compliance with regulations for the Federal Flood Control Insurance Program should be adopted.
- B-7.2 The multiple use of flood control channels should be encouraged.
- B-7.3 Geologic hazards in locations where dams, ponds, and other water impoundments exist or are proposed should be identified in the environmental review process. Appropriate modifications and mitigation measures should be required.
- B-7.4 Flood control measures should retain natural features and conditions as much as possible. Compatible uses (agriculture, wildlife habitat, recreation, etc.) of flood ponding areas and seasonal floodways should be promoted.
- B-7.5 Publicly controlled flood ponding areas should be retained; ponding covenants or easements held by the Flood Control District on property should not be transferred to other properties to allow development within floodways.

- B-7.6 Filling or other physical alteration in floodways, floodplains, or ponding areas should be limited to the minimum necessary as determined in development permits issued by the County.

C. BAYFRONT CONSERVATION ZONE

Habitat Protection and Restoration Policies

- C-1.1 The County shall preserve and enhance the diversity of wildlife and aquatic habitats found in the Marin County bayfront lands, including tidal marshes, seasonal marshes, lagoons, natural wetlands, and low-lying grasslands overlying historical marshlands.
- C-1.2 Development should not encroach into sensitive wildlife habitats, limit normal range areas, create barriers which cut off access to food, water, or shelter, or cause damage to fisheries or fish habitats. Buffer zones between development and identified or potential wetland areas should be provided. Access to environmentally sensitive marshland and adjacent habitat should be restricted, especially during spawning and nesting seasons.
- C-1.3 The County shall prohibit diking, filling, or dredging in areas subject to tidal action (Tidelands subzone) unless the area is small (less than one-half acre), isolated, or limited in productivity. In tidal areas, only land uses which are water-dependent shall be permitted, as consistent with federal, state, and regional policy (ports, water-related industry and utilities, airports, essential water conveyance, wildlife refuge, water-oriented recreation and public assembly). Exemptions may be granted for emergency or precautionary measures taken in the public interest, e.g., protection from flood or other natural hazard.
- C-1.4 The County shall, through its land use and development regulations, foster the enhancement of the wildlife and aquatic habitat value of the diked historic marshlands. Land uses which provide or protect wetland or wildlife habitat, and/or which do not require diking, filling, or dredging, shall be encouraged, specifically: restoration of the land to tidal status, agricultural use, flood basin, wastewater reclamation area. Other land uses which do not require diking, filling, or dredging and/or are less protective of habitat value may be permitted when it can be proven that the resulting public benefit exceeds environmental costs and liabilities. Public benefits to be provided in the diked portions of the Bayfront Conservation Zone shall include but not be limited to: public access and recreational opportunities, educational or scientific opportunities, provision of housing (particularly housing developments which include low and moderate income housing), provision of essential water conveyance, transportation or utility services, and protection from flood or other natural hazards. On parcels greater than one-half acre in size, mitigation and/or compensation for habitat value lost due to diking, filling, or dredging shall be required, the amount to be determined by the County in conjunction with federal and state agencies.
- C-1.5 Freshwater habitats in the bayfront areas associated with freshwater streams and small former marshes should be preserved and/or expanded such that the circulation, distribution and flow of the fresh water supply is facilitated.
- C-1.6 The County shall promote the retention and formation of large tracts of land within historic marshland areas and contiguous grassland areas as possible landbanks for the protection of wetlands habitats.

- C-1.7 Natural or managed flood basins should be utilized to provide seasonal habitat for waterfowl and shorebirds.
- C-1.8 The County shall allow the transfer of the development potential of diked historic marshlands which are restored to tidal status or enhanced as wetlands habitat to upland sites, provided that development on the upland site complies with development standards for the protection of adjacent habitat areas.
- C-1.9 The County shall review all proposed development within the Bayfront Conservation Zone in accordance with the planned district review procedure in order to ensure maximum possible habitat protection. An assessment of existing environmental conditions (biologic, geologic, hazard, and aesthetic) shall be required prior to submittal of development plans.
- C-1.10 The County shall facilitate consultation and coordination with the trustee agencies (Department of Fish and Game, U.S. Fish and Wildlife Service, the Corps of Engineers, and BCDC) during environmental review and during review of other proposals for lands within the Bayfront Conservation Zone.

Protection of Environmental Quality Policies

- C-2.1 The County shall ensure that development in the County occurs in a manner which minimizes the impact of earth disturbance, erosion, and water pollution within the Bayfront Conservation Zone.
- C-2.2 Disruption or impediment to runoff and stream flow in the watersheds of Marin County marshes should not be permitted if either can be shown to diminish the quality of the water entering the marshes and bay.
- C-2.3 The development and siting of industrial (and any other) facilities adjacent to bayfront areas should be planned to eliminate significant adverse environmental impacts on the water quality of the bay and marshes.
- C-2.4 The development of jetties, piers, outfalls, etc., should not be allowed to alter the movement patterns of the bay's tides and currents, such that significant adverse impacts would result.
- C-2.5 The County shall discourage any bay fill that diverts and retards currents, increases the deposition of sediments, or causes erosion and pollution.
- C-2.6 The County shall not permit waste discharge which would contaminate water resources or otherwise adversely affect any intertidal environment. Municipal discharges should move toward partial consolidation and relocation of discharge points.

Agricultural Uses in Bayfront Lands Policies

- C-3.1 The County shall protect existing agricultural lands in the Bayfront Conservation Zones. These lands are an important resource for the County: they are a visual and scenic resource; they play an integral role in other agricultural and dairy operations in Marin County; they are a productive economic resource; and they are compatible with water-related wildlife habitat. Such agricultural

activities could consist primarily of grazing operations harmonious with adjoining marshes, wetlands, grasslands, or other sensitive lands.

- C-3.2 Agricultural activities should minimize removal of natural vegetation where possible.
- C-3.3 Use of pesticides, insecticides, etc., should comply with existing federal and state standards, as implemented by the County Agricultural Commissioner.

Protection from Geologic, Flooding and Other Hazards Policies

- C-4.1 Any development proposed for lands within the Bayfront Conservation Zone must be consistent with policies and proposals of the County Seismic Safety Element, including avoidance of areas that pose hazards such as differential settlement, slope instability, liquefaction, ground shaking and rupture, tsunami, and other ground failures.
- C-4.2 Those areas underlain by deposits of "young muds" should be reserved for water-related recreational opportunities, habitat, open space, or limited development subject to approval by the Corps of Engineers and other trustee agencies.
- C-4.3 Any development (within the watershed areas) proposed for sites that have poor soil conditions for construction or that are seismically active should be designed to minimize earth disturbance, erosion, water pollution, and hazards to public safety.
- C-4.4 Areas defined as floodplain should serve the dual purpose of habitat and flood protection. Areas should be evaluated periodically to determine whether increases in the volume and rate of runoff from urbanization or natural forces warrant further flood mitigation measures.
- C-4.5 The County's regulatory procedures should reflect 100-year floodplain areas.

Public Access and Bayfront Recreation Policies

- C-5.1 Public use of the shoreline areas is desirable and should be encouraged consistent with ecological and safety considerations.
- C-5.2 The County shall ensure that public access is provided and protected along the bayfront and significant waterways. The County views public access easements, gained through offers of dedication, as a condition of development plan approval, as the primary means available to increase public access opportunities.
- C-5.3 The County will accept, as resources permit, public access easements where the offered easement is in a developed area (density of one unit per acre or greater) and substantial use could be expected by local residents. Where the County accepts an easement, it will be responsible for signing, providing appropriate facilities, and maintaining the easement. If the County does not accept an easement, it shall attempt to find appropriate public or private agencies to do so.

Where the County accepts an easement, it will be responsible for signing, providing appropriate facilities, and maintaining the easement. If the County does not accept an easement, it shall attempt to find appropriate public or private agencies to do so.

- C-5.4 The County shall evaluate potential new public access areas in order to determine the feasibility of providing access and the priorities for acquisition, based on the following criteria: desirability of the site, capacity to sustain use without significant adverse impacts on the bayfront habitat and wildlife, potential for hazard to public safety or health, availability of other public access points in the area, and compatibility with adjacent land uses.
- C-5.5 Public access should be sited and designed to facilitate public use and enjoyment of the bayfront lands. Public areas should be clearly marked, and continuous ten-foot walkways from the nearest roads to the shoreline and along the shoreline should be provided. Public access areas should be designed to minimize possible conflicts between public and private uses on the properties. Walkways should generally be set back at least ten feet from any proposed structure.
- C-5.6 Within the Bayfront Construction Zone, provision should be made for recreational development and access to the shoreline marshes for such uses as fishing, boating, hunting, picnicking, hiking, and nature study. There should be provisions for both separated wildlife preserve and more intensively used recreational uses along the bayfront. Every available appropriate means of providing public education regarding the value of shoreline preservation and the shoreline as an educational laboratory shall be encouraged.

Aesthetic and Scenic Quality Policies

- C-6.1 The County shall protect visual access to the bayfront and scenic vistas of water and distinct shorelines through its land use and development review procedures. This viewshed protection is essential for the preservation of Marin County and San Francisco Bay identity, for the enhancement of aesthetic qualities, and for visual and psychological relief from adjacent urban environments.
- C-6.2 Existing obtrusive man-made elements, such as instant views in the bayfront and waters of the bay should be identified, protected and enhanced by improvements (turn outs, benches, etc.) where possible. View corridors and low profile should be maintained on sites adjoining these locations.
- C-6.4 Waterfront development in particular should be designed for openness and permit optimal views for public enjoyment of bayfront lands.

D. THE BUILT ENVIRONMENT

- D-1 The criteria for evaluating the design quality of structures in various environmental zones contained in Table 2.3 and the accompanying figures should be used in reviewing proposed actions and in establishing requirements and incentives for developers.

- D-2 On open, grassy hillsides, buildings should be clustered well below the ridge, rather than scattered or grouped at the ridge top, to avoid the appearance of sprawl.
- D-3 On wooded hillsides the preservation of trees is of paramount concern; here, a more spread-out development pattern is desirable.
- D-4 Along creeks, development must retain the natural appearance, prevent water pollution, and minimize flood hazards from runoff.
- D-5 On low-lying mudflats or tidal fill areas, public access to creeks, streams, and the shoreline and protection of plant and animal habitats are essential.
- D-6 The design of high-intensity nodes of development in the City-Centered Corridor is especially important, because these areas are viewed and visited by large numbers of people. They include countywide activity centers, smaller community activity centers, and business development areas such as office concentrations and industrial parks. Business, commercial, and high-density residential development should be concentrated in these centers, shown in the Community Development section of the Plan.

Four major principles should guide the design of countywide and community activity centers and business development areas:

Accessibility. Centers attracting large numbers of people must be well-served by transportation lines, especially by public transit. Walkways should connect buildings conveniently with nearby transit stops. Bicycle and walking paths should connect with adjacent areas, to encourage local access by means other than the automobile.

Concentration. Intensive development must be concentrated at relatively few highly accessible locations. Development along 101 or other major roadways must not take the form of a solid, or even intermittently broken, wall of high-density development. Rather, there must be widely spaced, compact, fairly dense centers at carefully selected locations, separated by low-density development and open space. This configuration along Marin's major transportation corridor would support efficient transit, stimulate the creation of accessible jobs, and make it possible to reduce sprawl, in addition to providing a pleasant view from the freeway.

Multiple Uses. Uses that are mutually supported will be encouraged. For example, providing housing in business and commercial areas can have the beneficial effects of making services and jobs readily available to residents, supporting a wide range of commercial activities in the evening and on weekends, and increasing the use of public transit. Activity centers should also provide spaces for formal and informal public gatherings.

TABLE 2.3
SUGGESTED DEVELOPMENT REVIEW
CHECKLIST FOR ENVIRONMENTAL ZONES

<u>Environmental Zone</u>	<u>Important Should be Required</u>	<u>Desirable Negotiate with Incentives</u>
1. Wooded Hillside, Coastal Foothills, Central Upland Mountains, and Bayside Foothills (See Fig. 2.5)	Trees retained in natural setting Leave substantial area where natural litter and soil build up can occur	Buildings set apart (scatter okay) Buildings grouped naturally in tree area, no detrimental grading or runoff Ridge line not developed
2. Open Grassy Hillside, Coastal Foothills, Central Upland Mountains, and Bayside Foothills (See Fig. 2.6)	Rural roads and minimal lighting Graded cuts and fills replanted with fire protective plant material	Buildings clustered in pockets below ridge line (no scatter) Grazing or management plan for retaining grassy hillside character Planting program with native growth predominant
3. Creek Settings, Coastal Terraces, Inland Valleys, and Bayside Plains (See Fig. 2.7)	Use of creek as common open space in natural setting Management program for preventing excess stream blockage and maintaining natural riparian vegetation Prevent gully by diversion of excess surface runoff Creek setting as buffer to development with connecting trails to larger usable open space reserves	
4. Bayfront Conservation Zone	Policy provisions of the Bayfront Conservation Zone	
5. Enclosed Valley or Area exposed to Travel Corridor in Bayside Plains. (See Fig. 2.8)	Sympathetic relationship to existing built environment in vicinity Central usable open space linked to perimeter open space areas	Buffer zone landscaped, not fenced at traffic corridor on boundary Focal or prominent feature protected, rock outcrop special wall, clump of trees
6. All Environmental Zones (See Fig. 2.9)	Cluster for reducing cost of roads and utilities; savings passed on in reduced unit cost charges Dedicated or managed usable open space in ratio to developed area Exterior grounds and building maintenance program Usable greenbelts, landscaped or natural with paths and trails	Sediment production increased minimally or stabilized Provision for elderly handicapped group care facilities Recreation facilities, clubhouse, tennis courts, swimming, other Walk system to reach schools, church, shopping with traffic conflicts minimized Road system easily understood by visitors

Figure 2.5

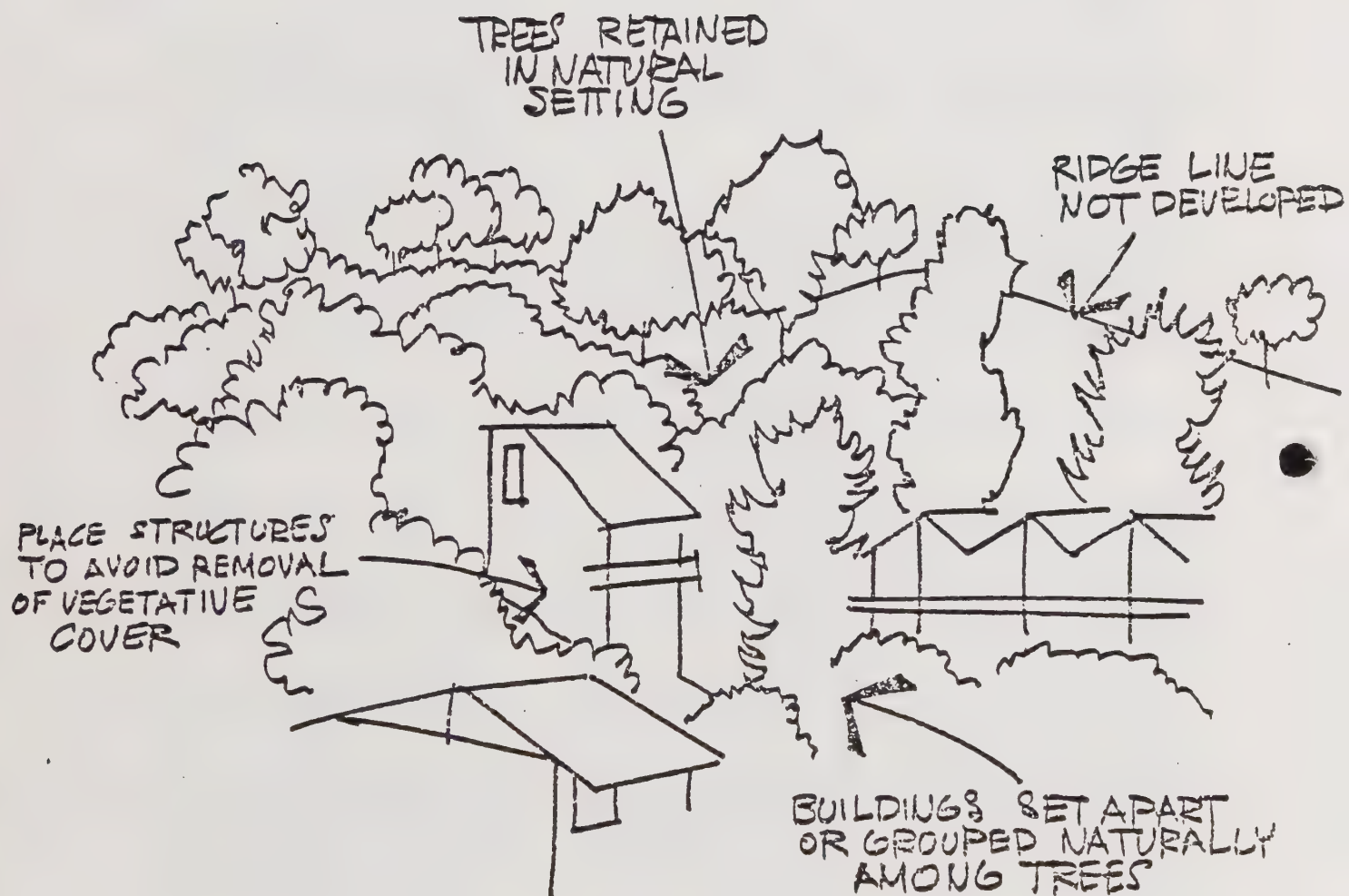


Figure 2.6

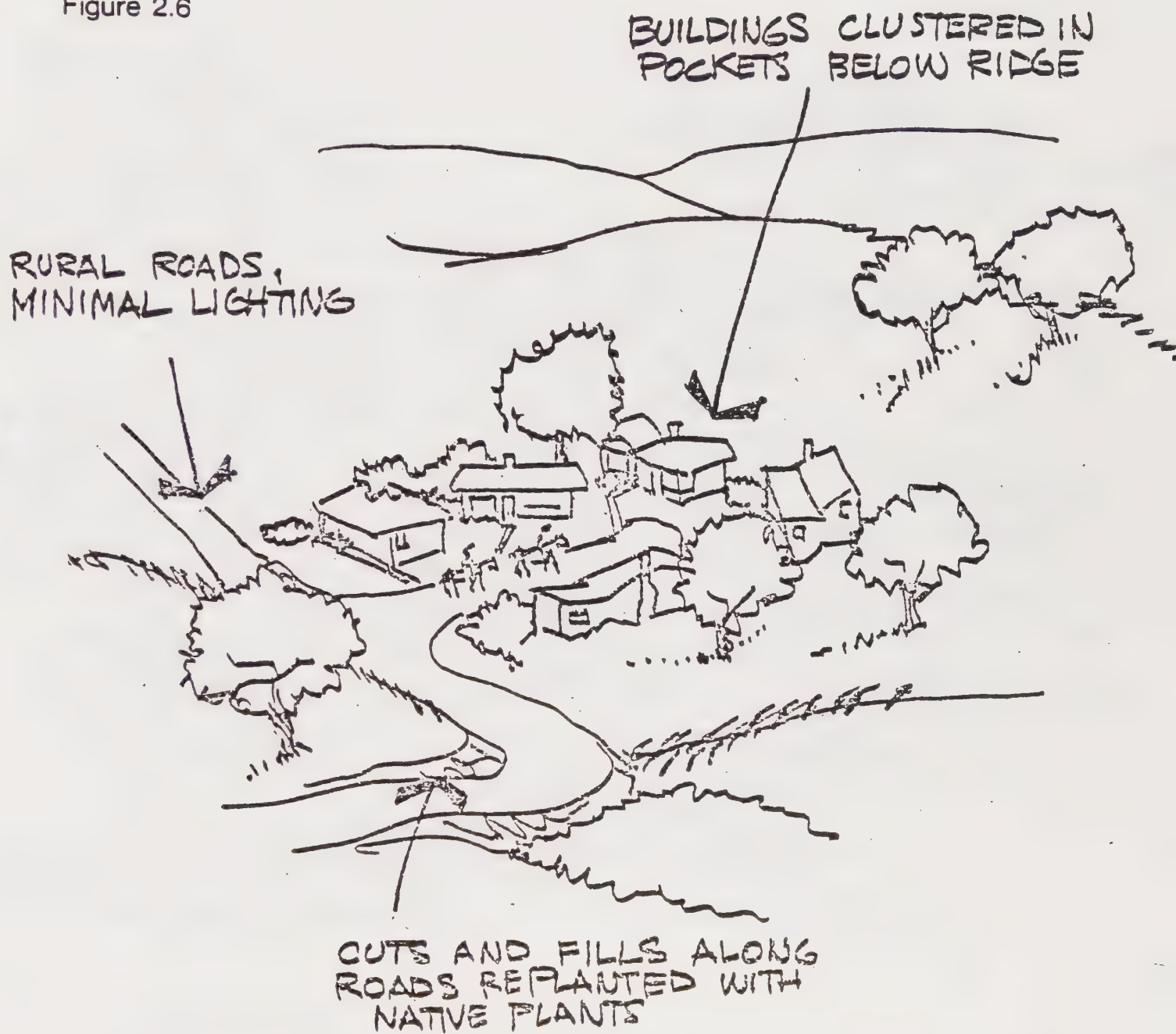


Figure 2.7

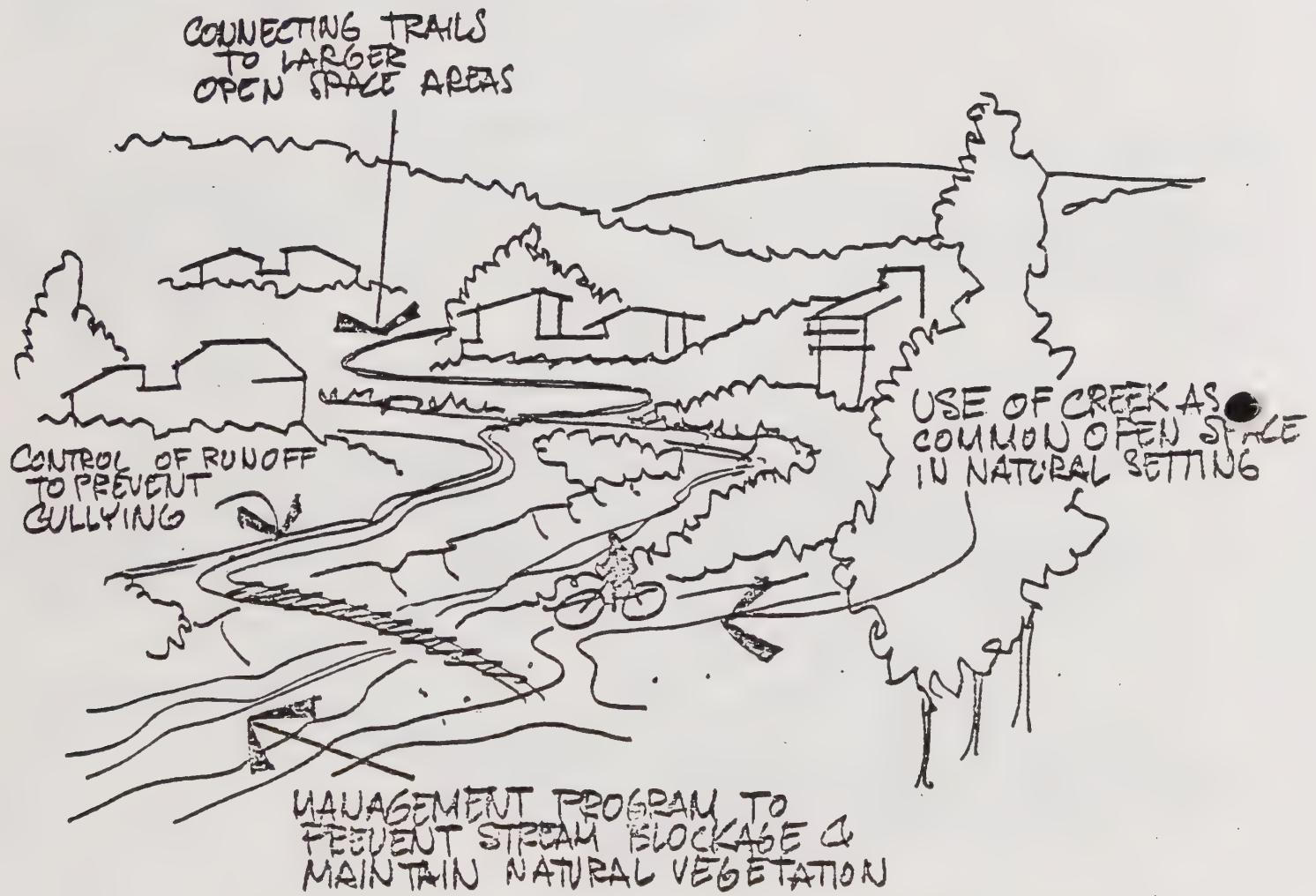


Figure 2.8

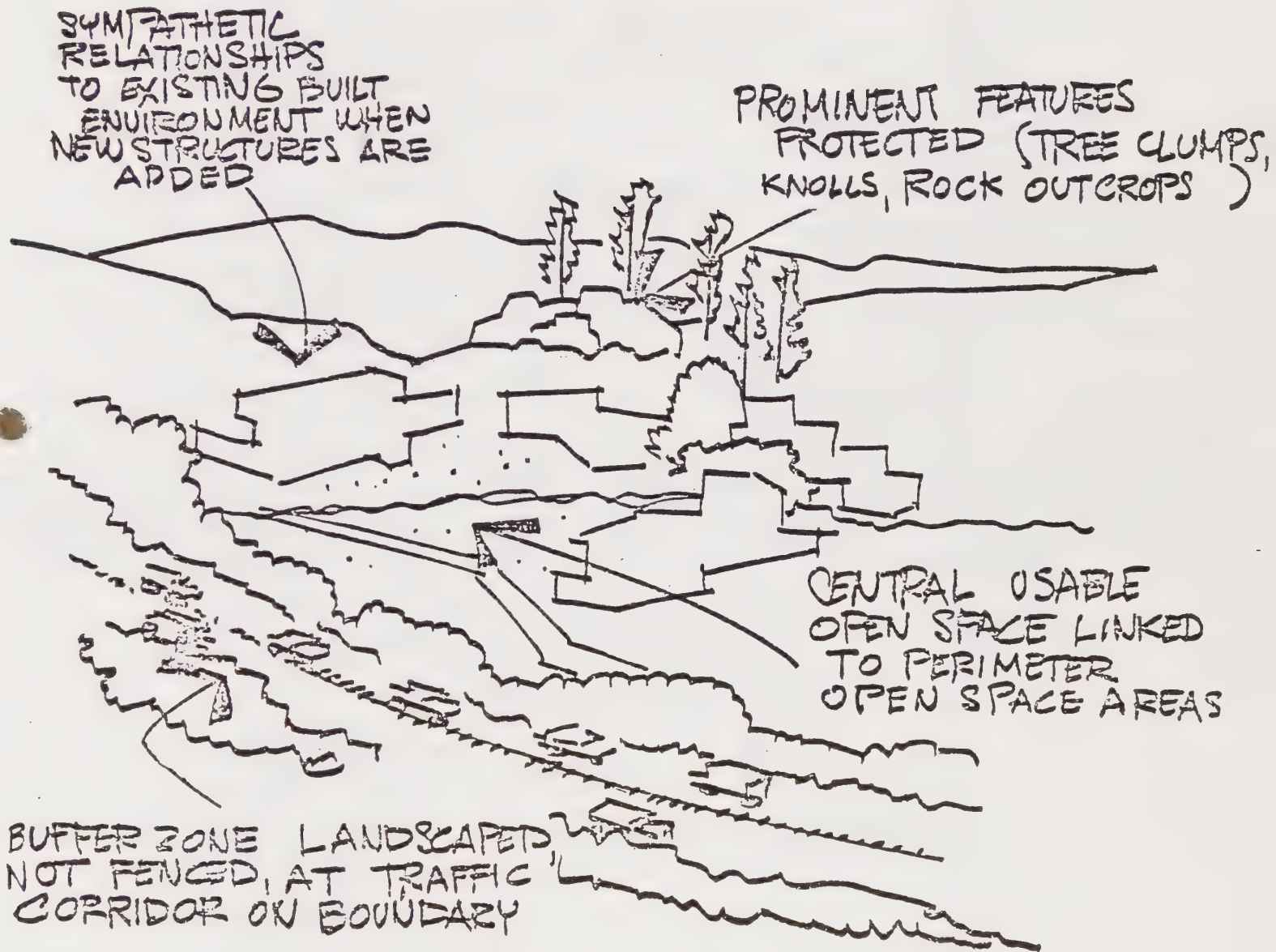


Figure 2.9

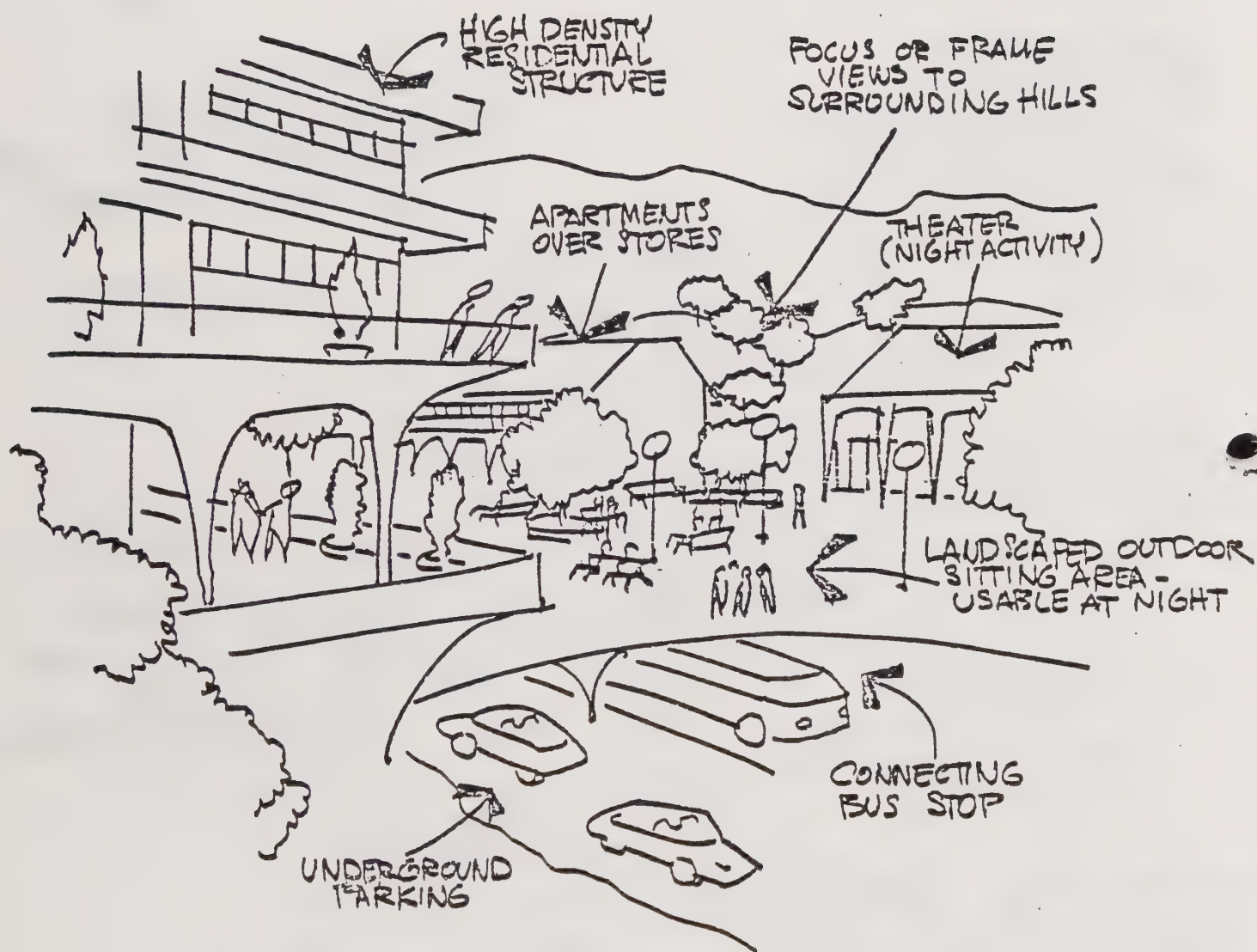


TABLE 2.5
OPEN SPACE AREAS IN THE CITY-CENTERED CORRIDOR

<u>Area</u>	<u>Acres</u>
<u>Community Separators</u>	
1. Wolfback Ridge to Tennessee Valley	820
2. Ridges Above Tamalpais Valley	640
3. Tiburon Peninsula Ridge	1,740
4. North Ridge	1,120
5. Rim of Corte Madera Creek Watershed	1,750
6. Southern Heights Ridge	(Minimal easements only)
7. San Pedro Peninsula Hills	1,860
8. San Rafael-Sleepy Hollow Divide	3,890
9. Civic Center	130
10. Big Rock Ridge	6,400
11. Hills East of 101 Near St. Vincent's School	1,070
12. Bahia and Black Point Knolls and Ridges	970
13. Mount Burdell	1,400
Subtotal	21,770
<u>Water Edge Lowlands</u>	
14. Richardson Bay	330
15. East Side of Tiburon Peninsula	80
16. Corte Madera Bay Front	390
17. San Rafael Bay	380
18. San Pedro Peninsula Shoreline	680
19. San Pablo Bay Front, Las Gallinas Creek to Novato Creek	1,850
20. Novato Creek to Black Point	790
21. Petaluma River	950
Subtotal	5,450
<u>Stream and Creek Reserves</u>	
22. Mill Valley Area Creeks	90
23. Corte Madera Creek	120
24. Las Gallinas Creek	110
25. Miller Creek, 101 to Big Rock	50
26. Arroyo San Jose	20
27. Novato and Warner Creeks	90
Subtotal	480
<u>Safety Zones</u>	
28. Gness Field	770
Subtotal	770
TOTAL, CITY-CENTERED CORRIDOR	28,470

Amenity. Centers of business and employment must offer an attractive environment, with landscaping, distinctive lighting and outdoor furnishings, and public sitting areas. Public access to waterfront areas should be provided, and historic buildings and sites should be preserved. The visual impact of parking must be minimized by placing it underground where possible and landscaping surface lots. Views of important natural and man-made features will be preserved and enhanced.

III. IMPLEMENTATION

A. RECOMMENDATIONS FOR THE CITY-CENTERED CORRIDOR

Because development pressures are strong, open space in the City-Centered Corridor has been and should continue to be secured (by purchase and other means) by the County Open Space District or other public agency in order to assure preservation. The acquisition of remaining designated open space should be pursued as fast as funds become available. Existing and proposed open space acreage in the City-Centered Corridor is shown in Table 2.4. The County has zoned remaining privately owned land in the unincorporated area to a low-density planned district category, to assure that environmental values are preserved when development takes place.

TABLE 2.4
CITY-CENTERED CORRIDOR

<u>Total Acres</u>	<u>Acres in Secured Public Open Space</u>		<u>Developed Areas</u>	
	<u>1970</u>	<u>1990 Plan</u>	<u>1970</u>	<u>1990 Plan</u>
79,140	1,980	32,820	23,730	30,464

Community Separators

These ridge and upland greenbelts separate and beautify Marin's communities. Some include hiking, biking, or horseback riding trails.

1. Wolfback Ridge to Tennessee Valley, west of Highway 101, around to Oakwood Valley, preserves Marin's southern gateway. It connects the Golden Gate National Recreation Area with Sausalito and Marin City. Most of this area has been acquired as part of the GGNRA.
2. Ridges Above Tamalpais Valley, along Panoramic from Tennessee Valley westward, includes trail links with Mount Tamalpais State Park. Portions are included in the GGNRA.

3. Tiburon Peninsula Ridge includes trails to several points along the bay. The Town of Tiburon has acquired portions of this ridge.
4. North Ridge is one of the most important community separators still remaining in Marin, connecting Mill Valley, Corte Madera, and Larkspur with the water district lands to the west. Most of the ridge has been acquired through joint efforts of the Open Space District, the Cities, and private organizations.
5. Rim of the Corte Madera Creek Watershed connects the Upper Ross Valley communities with the Marin Municipal Water District open land. Includes Cascade Canyon, acquired by the Open Space District.
6. Southern Heights Ridge, dividing San Rafael and the Ross Valley, has already experienced extensive development. However, this is an important community backdrop and as much of the area as possible should be retained in a greenbelt through scenic easements.
7. San Pedro Peninsula Hills provides a backdrop for the Civic Center and offers panoramic views of the bay region. Most of this ridge has been acquired by the State, the Open Space District, the City of San Rafael, and local residents.
8. San Rafael-Sleepy Hollow Divide is an important separator where housing has already begun to intrude. There is extensive open space remaining in the western part, portions of which have been acquired by the Open Space District. To the east the remaining ridge including a trail extending from the Civic Center to Loma Alta should be preserved through easements and other methods.
9. Big Rock Ridge separates the Novato basin from the Lucas Valley-Marinwood communities; extends to Stafford Lake Park and borders the College of Marin Indian Valley campus. Portions have been acquired by the Open Space District and local residents.
10. Hills East of 101 Near St. Vincent's School. These two open areas provide a continuous greenbelt system between Big Rock Ridge and San Pablo Bay. This space will separate new development in the Silveira-St. Vincent's area from other development north and south.
11. Pinheiro Ridge defines the northern extent of urban development in Marin on the east side of Route 101.
12. Mount Burdell, the major landmark of North Marin, should be included in a permanent scenic reserve extending from Gness Field to Stafford Lake. It is threatened by strong development pressures. Park facilities and bicycle, hiking, and riding trails connecting with adjacent communities should be included. The nearby Olompali Ranch has been designated by the State as an historic site.

Water Edge Lowlands

13. Richardson Bay. These sections of shoreline should be acquired by County or city agencies for recreational purposes or resource protection: Manzanita

Green, connecting Marin City with the bay, could provide a shoreline park for Marin City; a small salt marsh, one of the most valuable still remaining in the bay; the head of Richardson Bay, where Mill Valley intends to develop a small boat harbor or other recreation facilities, and Strawberry Cove. Bothin Marsh and most of the Tiburon shoreline have been acquired.

14. East Side of Tiburon Peninsula, now partially developed, from Keil Cove northward adjacent to Tiburon Ridge, should include expansion space for Paradise County park and a trail.
15. Corte Madera Bay Front. Existing marshes should be preserved, and the San Quentin site should be considered for public recreation as well as other uses when it ceases to operate as a prison. The Corte Madera Ecological Reserve has been established in this area.
16. San Rafael Bay. Land along the bay shore should be permanently secured for open space. This is the highest density residential area in the County, but it lacks adequate open space.
17. San Pedro Peninsula Shoreline should be acquired for water-oriented recreation from McNear's Beach north to Las Gallinas Creek. Major portions have been acquired as part of China Camp State Park.
18. San Pablo Bay Front, Las Gallinas Creek to Novato Creek, should be kept open to preserve the tidelands. The creekside should be kept free of developments which would contribute to siltation and loss of navigational use in the stream channels. This area contains the County's McInnis Park.
19. Novato Creek to Black Point, a valuable flood ponding area, includes large areas which have been acquired for this purpose.
20. Petaluma River. Natural marshes, river bank areas, and wildlife refuges between Bahia and the bay should be preserved, in cooperation with Sonoma County.

Stream and Creek Reserves

Most stream buffers in the City-Centered Corridor have already been encroached upon by development so that in many cases it is no longer possible to attain the desirable buffer zone on each side. In any case, strict controls and high environmental standards must be maintained in these zones.

21. Mill Valley Area Creeks. Local jurisdictions should provide adjacent parks and regulate development to protect streamside vegetation along Arroyo Corte Madera del Presidio, Old Mill, Cascade, Homestead, and Coyote Creeks.
22. Corte Madera Creek. Although much of this creek has already been lined with concrete, a landscaped bicycle path now extends from the Larkspur ferry terminal through the Ross Valley.
23. Las Gallinas Creek. The north edge should remain open and landscaped, providing a connection between the Civic Center and McInnis Park.

24. Miller Creek from 101 to Big Rock should provide a continuous natural strip through Marinwood and Lucas Valley. This should be assured as development plans are reviewed.
25. Arroyo San Jose through Rafael Village and the Novato Golf and Country Club area should also be kept open through regulation.
26. Novato and Warner Creeks, among the few remaining natural streams in East Marin, should be kept as reserves as far to the west as possible, through acquisition of streamside development rights.

Safety Zones

27. Gross Field Approach Zone. Hazardous uses should be prohibited in this area. No public acquisition is required.

B. RECOMMENDATIONS FOR THE INLAND RURAL CORRIDOR

A combination of agricultural zoning and contracts with land owners will continue to be used to preserve open land in the Inland Rural Corridor. In addition, government agencies and local groups will undertake special land management programs to protect streams, grasslands, and forests. Some acquisition by public agencies is needed to expand public parks and watersheds. Existing and proposed acres of open space in the Inland Rural Corridor as shown in Table 2.6. and in Table 2.7.

Public Open Space

1. Marin Municipal Water District Lands include hiking, riding, and bicycle trails and limited recreation facilities such as scout camps, in addition to their primary function of providing watershed reserves and reservoirs. This area has been expanded to the north around the Kent Lake Watershed to include the Carson Creek drainage.
2. An area north of Samuel P. Taylor State Park including Devil's Gulch, has been acquired by the federal government as part of a continuous park strip from the Golden Gate.
3. Nicasio Reservoir Park. This area offers excellent potential for fishing and boating, but it is likely to be subject to development pressure that would preclude public use.
4. Stafford Lake Park. The County now operates a park in this area, which includes the lake owned by the North Marin Water District.

Agricultural Areas

Agricultural preserve contracts and zoning to a prevailing density of 60 acres should be the primary means used to preserve agricultural activities in these areas. Some limited recreational use, such as dude ranches, campgrounds, and

TABLE 2.6

INLAND RURAL CORRIDOR

<u>Total Acres</u>	<u>Acres in Secured Public Open Space</u>		<u>Acres in Agricultural Areas</u>		<u>Village Acres</u>	
	<u>1970</u>	<u>1990 Plan</u>	<u>1970</u>	<u>1990 Plan</u>	<u>1970</u>	<u>1990 Plan</u>
130,280	23,490	39,290	105,790	89,090	1,000	1,900

TABLE 2.7

PROPOSED ADDITIONAL OPEN SPACE AREAS IN THE
INLAND RURAL CORRIDOR*

<u>Public Open Space</u>	<u>Acres</u>
1. Marin Municipal Water District Lands Expansion	2,450
2. Samuel P. Taylor State Park Expansion	1,150
3. Nicasio Reservoir Park	1,850
4. Stafford Lake Park Expansion	2,920
Subtotal	8,370
<u>Conservation Zones: Stream Course Buffers</u>	
5. Estero Americano	530
6. Estero San Antonio and Stemple Creek	910
7. Keys Creek	140
8. Chileno Creek, Laguna Lake, and San Antonio Creek	1,600
9. Walker Creek	1,000
10. Salmon Creek and Arroyo Sausal	870
11. Novato Creek	300
12. Halleck Creek	620
13. Nicasio Creek	610
14. Lagunitas Creek	400
15. San Geronimo Creek	450
Subtotal	7,430
Total Additional Publicly Secured Open Space	15,800

*Not Including Agricultural Areas.

hostels for bicycle travelers, should be permitted, to allow for reasonable use of private lands.

Lakes holding treated and reclaimed sewage water are being considered for recreation and for possible agricultural use, in Chileno Valley, Bulltail Valley, and Walker Creek drainage basin. These lakes should be used as alternatives to ocean or bay outfalls.

Rural lands retained for agriculture should not be expected to pay urban service districts assessments, and public investments should be scaled accordingly. The countywide soils district should manage agricultural soils to protect them from erosion and pollution from livestock.

Conservation Areas

Stream courses in the Inland Rural Corridor are especially prone to environmental damage. They will be carefully protected from pollution, bank erosion, and destruction of native plants, animals, and fish in reviews of any proposed activities affecting watersheds. These activities include agricultural uses, such as damming for holding ponds, pumping water, and disposing of cattle waste.

A conservation zone with a stream buffer extending 100 feet on either side of the high water mark for major streams is proposed. Development and use will be carefully controlled in accordance with environmental protection policies for conservation zones.

C. RECOMMENDATIONS FOR THE COASTAL RECREATION CORRIDOR

A comparison of existing and proposed acres of open space in this corridor is seen in Table 2.8 and in Table 2.9. More detailed policies are included in the Marin County Local Coastal Program adopted by the Board of Supervisors and the Coastal Commission.

Public Open Space

1. Golden Gate National Recreation Area. The National Park Service has established this major new national park, generally including the southern tip of the County, extending east to the boundary of the City-Centered Corridor and north to Muir Beach and Taylor Park; and the Olema Valley, north to Sir Francis Drake Boulevard, excluding the town of Olema. This configuration assures a continuous corridor of public land for recreation and open space along Marin's southern coast and adjacent to Point Reyes National Seashore. The Countywide Plan recommends that the area be retained in its natural state to the greatest extent possible, and that recreational uses be low density.
2. Mount Tamalpais-Stinson Beach State Parks. These state park lands surrounding Muir Woods National Monument should continue to be used for fairly intensive public recreation.

TABLE 2.8
COASTAL RECREATION CORRIDOR

<u>Total Acres</u>	<u>Acres in Secured Public Open Space</u>		<u>Acres in Agricultural Areas (Outside Secured Open Space)</u>		<u>Village Acres</u>	
	<u>1970</u>	<u>1990 Plan</u>	<u>1970</u>	<u>1990 Plan</u>	<u>1970</u>	<u>1990 Plan</u>
123,960	60,560	88,960	62,380	33,040	1,020	1,960

Note: The above table not part of adopted text.

TABLE 2.9
PROPOSED ADDITIONAL OPEN SPACE AREAS IN
COASTAL RECREATION CORRIDOR*

<u>Public Open Space</u>	<u>Acres</u>
1. Golden Gate National Recreation Area	13,910
<u>Conservation Zones</u>	
2. Bolinas Bay Cliffs, Audubon Canyon	3,470
3. Duxbury Reef	1,160
4. Cliffs at Bodega, Mouth of Estero San Antonio	2,010
5. Tomales Bay Front, Walker Creek Mouth	4,570
6. San Andreas Rift Zone	3,140
7. Olema Creek (outside GGNRA)	140
Subtotal	<u>14,490</u>
Total Additional Publicly Secured Open Space	28,400

*Not Including Agricultural Areas.

3. Point Reyes National Seashore and Tomales Bay State Park. The National Park Service has completed land acquisition and is now developing facilities at Point Reyes. The Countywide Plan recommends that the National Seashore be retained in its natural condition to the greatest extent possible, and that it provide primarily low-intensity recreational uses such as hiking and wilderness education. High-intensity uses (picnicking, sports activities) should be provided only in areas that can resist environmental damage, such as beaches. These areas should be served by convenient public transportation, but ecologically fragile areas should remain relatively inaccessible. It is hoped that the National Park Service will establish interpretive resource centers before opening up environmentally sensitive areas and that it will plan and work toward the establishment of an internal transit system as soon as possible.
4. Bolinas Lagoon is a County park, primarily as a reserve in a fragile natural environment. A limited amount of public facilities will be provided over time with the impact monitored through a research program by the County Parks and Recreation Department.

Agricultural Areas

Agricultural zoning and contracts should be used to help preserve and encourage the retention of these activities and preserve portions of this corridor in their present dairying and ranching uses, as recommended for the Inland Rural Corridor. The Marin County local Coastal Program designates these lands as Agricultural Production zones, to strengthen and encourage exclusive agricultural use.

Conservation Areas

Designated conservation zones in the Coastal Recreation Corridor will be carefully controlled in accordance with the special environmental protection policies for these areas, including policies of the local Coastal Program. Duxbury Reef, Bolinas Bay Cliffs, Bodega Bay Front from Dillon Beach to Sonoma County, the east side of Tomales Bay and the Tomales Bay estuary are shoreline areas.

Land along the San Andreas Rift Zone is subject to severe impacts from earthquakes. No concentrated or hazardous uses will be permitted here, including schools, other institutions, high-density housing, or reservoirs. The inclusion of much of this zone in the Golden Gate National Recreation Area will prevent development along a large extent of the fault.

D. IMPLEMENTATION MEASURES

Open Space Acquisition

The following are means of implementing the recommendations set forth in this part of the Countywide Plan. The acquisition techniques mainly involve use of governmental fiscal resources including trade-offs for tax reductions.

- o Outright purchase (full fee)
- o Installment purchase (no title change until last payment)
- o Purchase in advance of landbank, leaseback or resale a portion as surplus
- o Excess condemnation with road, school, flood district, etc.
- o Purchase option to buy in future (first right of refusal)
- o Purchase right of entry plus floating trail easement
- o Easement partial purchase (development rights) for specific limited use
- o Require open space dedication as conditional development approval
- o Trade or transfer of lands with other public/private bodies
- o Long term lease (no purchase)
- o Gifts and voluntary land donations
- o Estate settlement, life estate, or in lieu of back taxes
- o By private or semi-public non-profit land trust
- o Voluntary agreements to permit scenic, recreational uses
- o Tax reduction contracts, agreements and write-offs

The Marin County Open Space District, National Park Service, State Department of Parks and Recreation, cities, and special districts have acquired much of the land designated as open space in the Plan, using a variety of these techniques. Another approach recommended by the Countywide Plan to secure open space is to consider a program which would enable the development rights on lands designated as open space to be transferred to areas designated as high intensity centers. If this approach proves feasible and is authorized by law, it should be applied only in designated areas which meet Countywide Plan standards for density increases. (See Community Development Section.) The policy should not be applied wholesale throughout the City-Centered Corridor. Specific ratios of amounts or dollar values of open space to density bonuses to be allowed will have to be worked out. It should be possible for a developer to transfer development rights from selective open space areas in any part of the County, not just in the immediate community where a project is proposed.

Other methods for securing open space include cooperative purchase arrangements with local communities, contributions from individual owners and private organizations, open space dedications of areas being developed simultaneously, scenic easements, and open space contracts similar to agricultural preserves under the Williamson Act.

When a public agency is unable to purchase or otherwise permanently secure an area designated for open space, a reasonable use must be permitted under zoning and other regulations. This might be, if the site is suitable, low density residential with provision for clustering to preserve maximum open space.

Regulation

Regulation can also be used to achieve the environmental policies of the Plan. The regulation list involves the use of governmental powers, principally police powers like zoning to achieve public benefits in the private development of land, in areas of special environmental concern such as:

- o Natural hazards
 - geologic risk zones (fault, bay mud, landslide)
 - flooding risk zones (floodplain, stream buffer)
 - fire risk zones (grass, dry brush, dead-end canyons)
- o Noise and flight path safety zones (airport, freeway)
- o Special recreation-visitor destination facilities (golf courses, hunting preserves, special event areas, etc.)
- o Agricultural and rural zones
- o Historic preservation areas (including archaeological sites)
- o Marine and wildlife resource conservation reserves
- o View protection zones
- o Density transfer zones
 - planned unit (cluster) zones
- o Scenic travel corridors
- o Gion right of public access by historical precedence*
- o Compensable zoning-freeze value with government guarantee of price difference

Management

The following management techniques are also means of implementing the recommendations set forth in the Countywide Plan.

- o Countywide management board to administer management programs for public and private open space

*The California Supreme Court has ruled (in the Gion decision) that public right of access is implied on beaches where the public use has occurred for a number of years.

- o Private landowner management plan
- o Agricultural/rural management plan
- o Coastal recreation/resource protection management plan
- o Multi-use management plan (recreation, marsh, wildlife, flood control, water, sewer, fire, school, etc.)

Conservation of Agricultural Lands - Transfer of Development Rights (TDR)

Land in Marin County that is zoned for agricultural uses also has development rights for other uses, such as residential development. However, the exercise of these development rights often adversely affects and disrupts agricultural operations. In order to protect and conserve land in agricultural production while recognizing appropriate development rights for each property, some mechanism must be found to allow the exercise of development rights without disrupting agricultural land uses and the means of mitigating environmental constraints.

Transfer of Development Rights (TDR) is a planning and zoning device which has the potential to mitigate the adverse impact development has in displacing agricultural uses. TDR allows the development rights on one property (the donor property) to be acknowledged and determined, and provides the means by which those development rights can be transferred to another (receiver) property. The purpose of such a transfer is to relocate potential development from areas where environmental or land use impacts could be severe to areas where those impacts can be minimized.

TDR provides a way for the potential alternative development rights to be recognized and removed to another location, leaving the agricultural use undisrupted and no longer threatened by incompatible land uses. Where TDR is used, the future development of the donor property should be limited by a conservation easement or restriction which notes that development rights have been transferred to another property.

Protection of Stream Conservation Area

The County shall implement the policies for Stream Conservation Areas through its established permit review processes. When a building, excavation, or other permit is applied for, it will be determined whether the proposed development falls within the zone, generally 100 feet from the bank of blue line streams in the Coastal Recreation and Inland Rural Corridors and 50 feet from the bank of blue line streams in the City-Centered Corridor. If the project is in this zone, it will be determined whether the proposed use is permitted by right under the Stream Conservation policies, as well as in the underlying zoning.

If the proposed use is neither permitted under Section B-1.4 nor prohibited under Section B-1.5 of Stream Conservation policies, but is allowed under the zoning, the applicant may apply for a development permit. In order for such a permit to be issued for an existing parcel, it shall first be necessary to determine either that the parcel falls entirely within the Stream Conservation Area or that development on any other portion of the parcel would have greater impacts on water quality than if development occurred within the zone. If the proposal involves the creation of a new parcel, any needed modifications should be made to assure that no development occurs within the Conservation Area to the extent possible.

Applicants shall be required to submit adequate information to determine whether the Stream Conservation Area policies are being met. All development permit applications shall be reviewed for conformity with these policies, and in accordance with the California Environmental Quality Act. Proposals which do not conform to Stream Conservation policies, and which cannot be modified or mitigated so that they do conform, shall be denied.

Information on 100-year flood plains should be made available on display maps for public and staff reference and shall be incorporated into all planning reviews.

Protection of Bayfront Lands

In order to insure protection and enhancement of the bayfront lands, and to improve and speed the review process, the County will establish new project review procedures in the Bayfront Conservation Zone.

Early Environmental Assessment. In the future, environmental assessment of existing conditions on proposed development sites (biologic, geologic, hazard, and aesthetic) will be completed prior to preparation of master plans and development plans. These assessments should include recommendations for siting and design that will minimize adverse environmental impacts. This early assessment should speed the development review process by providing the applicant and the County with the information necessary to arrive at a mutually acceptable project early in the development process. The assessment would serve as a portion of the Environmental Impact Report on the project.

Planning District Approach. The County will rezone all parcels within the Bayfront Conservation Zone to Planned Districts (where this is not already the case). Based on the findings and recommendations of the environmental assessment, the applicant would prepare a master plan. Many of the potential environmental impacts of development in the bayfront lands can be mitigated by proper siting and by buffer zones between projects and adjacent wetlands. After review and approval by the County, the applicant would then prepare a detailed development plan. This would also be reviewed and acted on by the County.

Early Consultation with Other Agencies. Any development project within the Bayfront Conservation Zone is subject to the review, and possibly the permit process, of federal and state agencies with jurisdiction over wetlands. It is critical that the applicant consult with these agencies at the very outset of a development project. The County will make every effort to coordinate its review process with the review process of other agencies, consulting with them on the environmental assessment and the master plan. The applicant will be informed at the first contact with the Planning Department which other agencies are likely to claim jurisdiction and what the policies and standards of those agencies are regarding development activities in the Bayfront Conservation Zone. The data and maps prepared as part of the Appendix to Part 2, Bayfront Conservation Zone (Madrone Associates, July 1980) will aid County staff in providing this information to applicants.

PART 3. COMMUNITY DEVELOPMENT

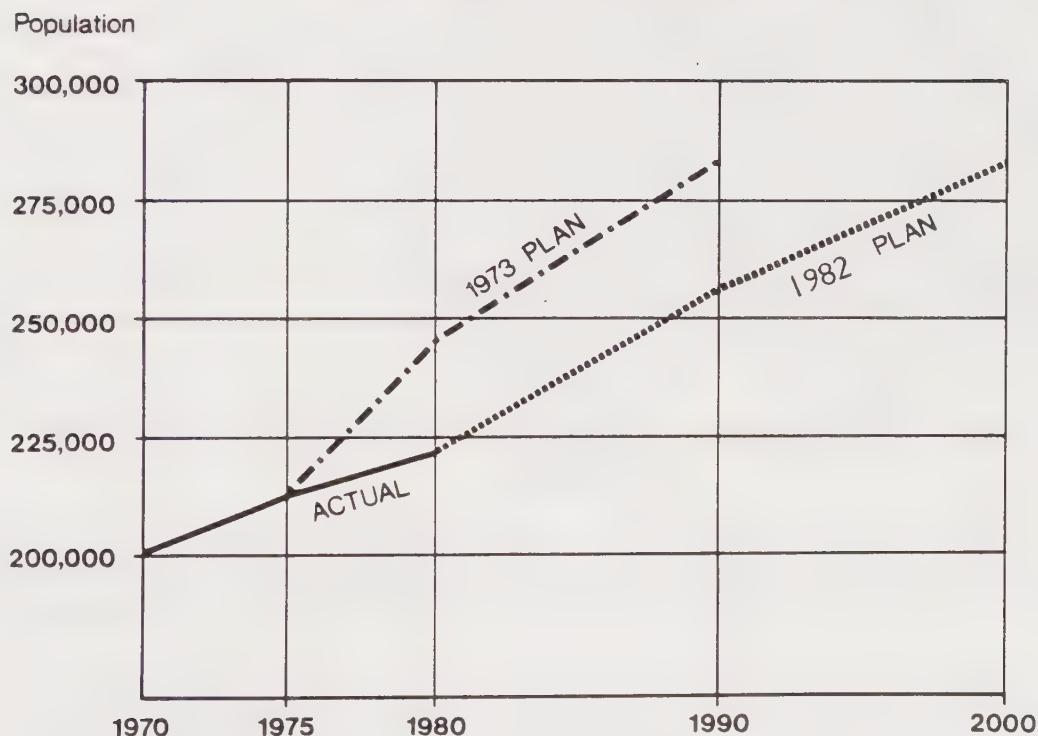
I. BACKGROUND

This Community Development section sets forth the residential and economic policies for the County. These policies are formulated to support the countywide goals and are particularly designed to assure that development occurs in a manner that enhances community character, is consistent with the availability of public services, facilitates transit opportunities, and encourages the provision of housing convenient to jobs and community facilities.

A. POPULATION GROWTH

The rate of growth in the county over the next 20 years reflects the general plans of the county's eleven incorporated cities, as well as the plans for the County's unincorporated communities. The 1980 population estimate of 229,958 is projected to increase to 282,358 by the year 2000. The projected growth rate, as well as that projected by the 1973 Plan is shown in Figure 3.1.

Figure 3.1
MARIN COUNTY POPULATION



The distribution of growth in the county is shown in Figure 3.2 which identifies the county's planning areas in the City-Centered Corridor and their share of the county's growth between 1980 and 2000. Clearly, the major areas of future development are the Novato and Richardson Bay planning areas. Table 3.1 provides a more detailed view of past and projected growth trends.

B. HOUSING

Housing Growth and Distribution

The projected population for the year 2000 indicates that 25,600 additional housing units will be required. Nearly 80% of the new housing units will be developed in three of the planning areas: Novato, Las Gallinas/San Rafael, and Richardson Bay. Although 25,600 appears to be a substantial number of new dwelling units, it must be remembered that this level of development is over a 20 year period. The annual average number of units projected for the 1980-2000 period is less than the annual average for the 1954-1979 period.

Table 3.2 shows that housing development occurred faster than anticipated by the 1973 plan in the Novato and Richardson Bay planning areas, and slower than projected in San Rafael/Las Gallinas and Lower Ross Valley planning areas.

Housing Affordability

One of the critical issues facing the county is the rising costs of housing. Increases in housing prices have outstripped increases in income. The direct result is that many people employed in Marin have difficulty in meeting housing costs. The extent of this disparity is evident in Figure 3.3, which compares housing costs and incomes for 1970 and 1979. In 1970, 56% of the county's households were in the lower, moderate, and middle income ranges. Nevertheless, 66% of the units for sale were at a price considered affordable to these income groups. By 1979 the ability to purchase housing units had been substantially reduced. While the percent of low, moderate, and middle income groups had shrunk slightly to 51% of all households in the county, the share of housing units for sale at a price range affordable to these groups had fallen to 2%! In other words, 98% of the units for sale in 1979 were at a price range generally considered beyond the financial means of 51% of the county's households. Greater detail on housing needs and the efforts to meet these needs are presented in Part 6, Housing.

C. ECONOMIC DEVELOPMENT

Between 1980 and 2000, employment is projected to increase 33% from 63,700 to 84,700 jobs (see Table 3.3). Over 49% of this projected growth is expected in the Novato planning area and another 30% in the Las Gallinas/San Rafael planning area.

This rate of employment growth is slightly greater than the projected rate of growth for housing units (26%). It is important to compare these two trends because of their effect on the County's transportation facilities and energy consumption. In Marin County, housing prices are high and the number of jobs per housing unit is

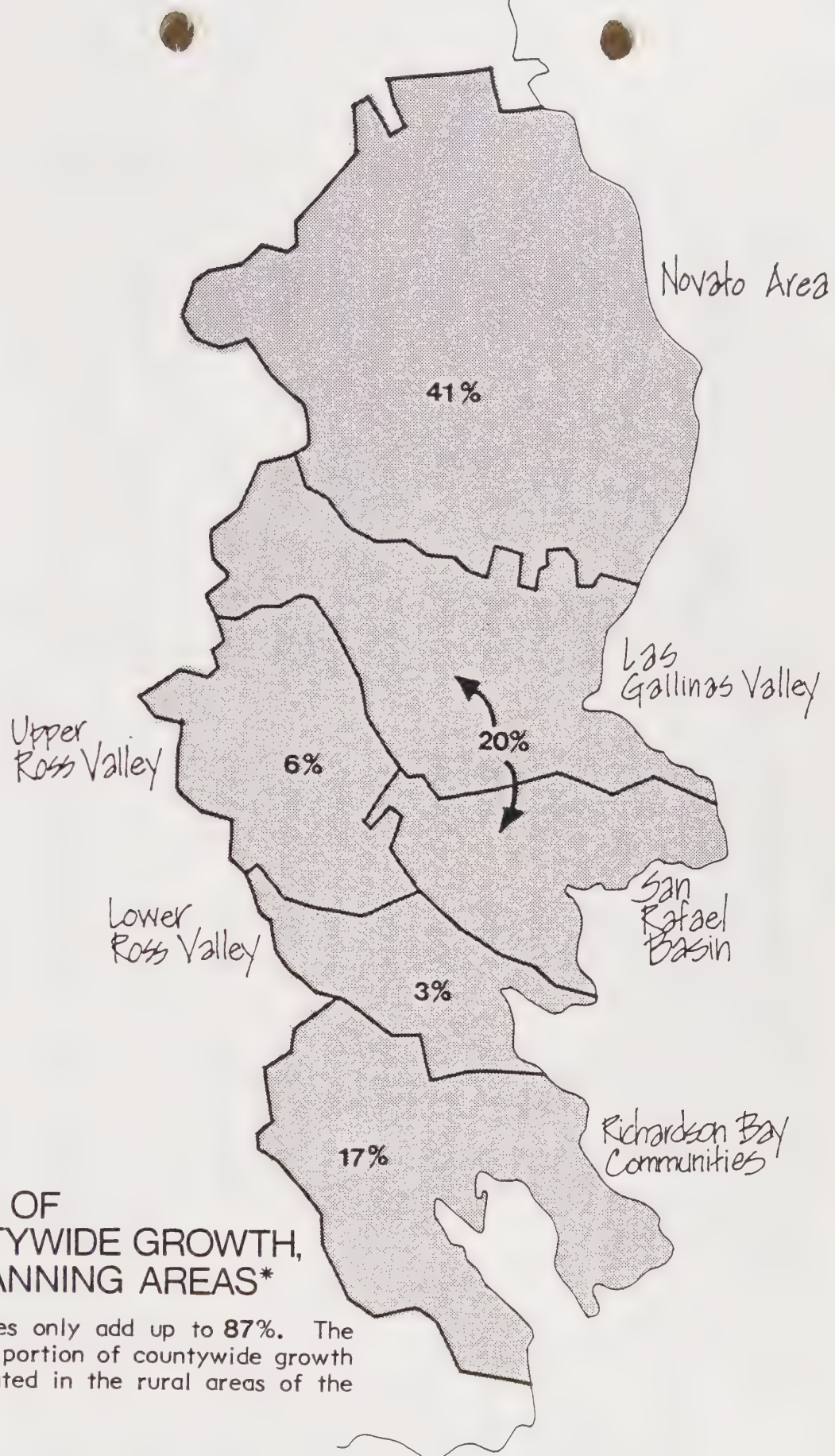


Figure 3.2

SHARE OF COUNTYWIDE GROWTH, BY PLANNING AREAS*

*Percentages only add up to 87%. The remaining portion of countywide growth is anticipated in the rural areas of the County.

Between 1980 and 2000 nearly 4 out of every 10 new persons in the County will locate in the Novato planning area. The Las Gallinas/ San Rafael and Richardson Bay planning areas will continue to have major population concentrations.

TABLE 3-1
POPULATION IN MARIN COUNTY

<u>Subareas and Corridors</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>		<u>1990</u>		<u>2000</u>
			<u>1973 Plan</u>	<u>Estimated</u>	<u>1973 Plan</u>	<u>Revised Plan</u>	<u>Revised Plan</u>
Novato	39,220	46,266	55,200	48,782	68,600	59,621	70,462
Las Gallinas	25,800	58,043	33,200	59,443	39,700	64,675	69,867
San Rafael	31,600		37,700		41,000		
Upper Ross Valley	26,950	26,628	29,600	26,131	32,200	27,352	29,487
Lower Ross Valley	31,950	29,337	37,100	28,709	41,800	29,641	30,212
Richardson Bay	45,060	52,549	54,200	54,915	60,500	58,388	63,694
City-Centered Corridor	200,580	212,823	247,000	217,980	283,800	239,677	263,722
Two Rural Areas	8,994	12,481	13,000	11,978	16,200	13,128	18,636
Countywide Total	209,574	225,304	260,000	229,958	300,000	252,805	282,358

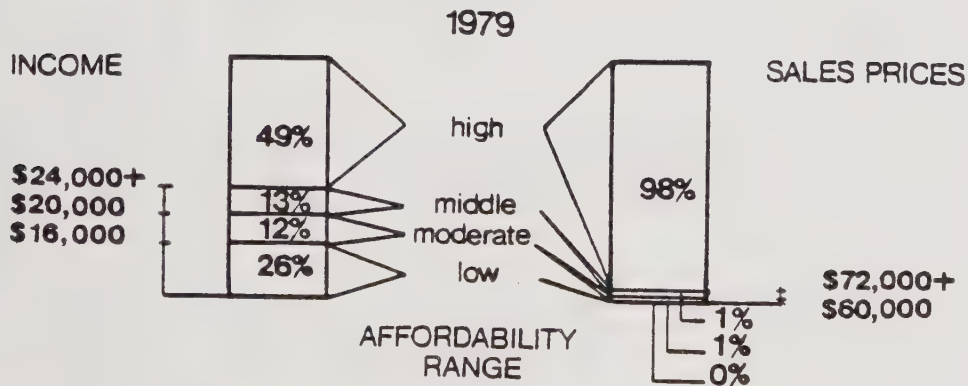
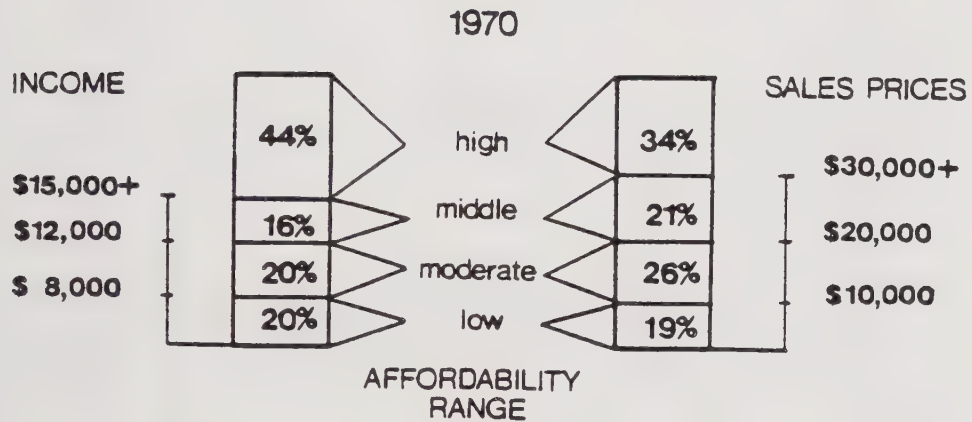
- Sources: 1. 1970, 1980 (1973 plan), 1990 (1973 plan): Marin County Planning Department; Marin Countywide Plan, 1973, p. 3-39.
2. City-Centered Corridor, 1975, 1980 (estimated), 1990 (revised plan) 2000 (revised plan): Marin County Planning Department, Countywide Plan Update Program, "Technical Report #1: Housing, Population and Employment Projections for the City-Centered Corridor", final draft, December 1979.
3. Two Rural Areas, 1975, 1980 (estimated), 1990 (revised plan), 2000 (revised plan): Association of Bay Area Governments, Projections 79, April 1979, pp. IV-14 - IV-16. (Figures are for occupied dwelling units. All other figures for total dwelling units.)

TABLE 3.2
HOUSING IN MARIN COUNTY

<u>Subareas and Corridors</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>		<u>1990</u>		<u>2000</u>
			<u>1973 Plan</u>	<u>Estimated</u>	<u>1973 Plan</u>	<u>Revised Plan</u>	<u>Revised Plan</u>
Novato	10,600	15,844	15,900	18,244	20,700	23,244	28,644
Las Gallinas	7,000	21,524	9,500	21,774	12,100	24,323	26,872
San Rafael	11,700		14,600		16,500		
Upper Ross Valley	9,400	10,410	10,900	10,580	11,900	11,302	12,002
Lower Ross Valley	10,000	11,211	13,400	11,712	15,600	12,681	13,327
Richardson Bay	17,000	22,548	21,600	23,544	24,000	26,183	28,821
City-Centered Corridor	65,700	82,537	85,900	85,854	100,800	97,733	109,666
Two Rural Areas	3,000	4,225	4,400	4,225	5,300	4,661	5,955
Countywide Total	68,700	85,762	90,300	90,079	106,100	102,394	115,621

- Sources: 1. 1970, 1980 (1973 plan), 1990 (1973 plan): Marin County Planning Department; Marin Countywide Plan, 1973, p. 3-39.
2. City-Centered Corridor, 1975, 1980 (estimated), 1990 (revised plan) 2000 (revised plan): Marin County Planning Department, Countywide Plan Update Program, "Technical Report #1: Housing, Population and Employment Projections for the City-Centered Corridor", final draft, December 1979.
3. Two Rural Areas, 1975, 1980 (estimated), 1990 (revised plan), 2000 (revised plan): Association of Bay Area Governments, Projections 79, April 1979, pp. IV-14 - IV-16. (Figures are for occupied dwelling units. All other figures for total dwelling units.)

Figure 3.3
**FAMILY INCOME AND
 HOUSING SALES PRICES 1970 & 1979:
 AFFORDABILITY COMPARISON**



Source: U.S. Population of Housing and Population 1970, and Marin County Revised Housing Element, 1979.

Note: Income ranges as follows: low--80 percent or below median; moderate--80 percent to 100 percent regional median; middle--100 percent to 120 percent regional median; high--120 percent or above. Affordability determined to be 3 times annual gross income.

TABLE 3.3
EMPLOYMENT IN MARIN COUNTY

<u>Subareas and Corridors</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1990</u>		<u>2000</u>
			<u>Estimated</u>	<u>1973 Plan</u>	<u>Revised Plan</u>	<u>Revised Plan</u>
Novato	8,380	4,533	6,000	16,020	11,800	15,900
Las Gallinas	7,590			15,430		
		26,648	29,710		33,561	36,095
San Rafael	16,140			23,920		
Upper Ross Valley	3,730	5,361	5,671	5,060	6,165	6,699
Lower Ross Valley	9,330	6,975	7,423	15,580	8,298	8,948
Richardson Bay	7,100	13,785	14,373	10,280	15,500	16,003
City-Centered Corridor	52,270	52,769	63,177	86,290	75,324	83,645
Two Rural Areas	2,370**	837	503	3,220*	603	1,010
Countywide Total	54,630**	53,606	63,680	89,500*	75,927	84,655
Military	3,000	N.A.	N.A.	1,200	N.A.	N.A.
Total, including Military	57,630	N.A.	N.A.	90,700	N.A.	N.A.

- Sources: 1. 1970, 1980 (1973 plan), 1990 (1973 plan): Marin County Planning Department; Marin Countywide Plan, 1973, p. 3-39.
2. City-Centered Corridor, 1975, 1980 (estimated), 1990 (revised plan) 2000 (revised plan): Marin County Planning Department, Countywide Plan Update Program, "Technical Report #1: Housing, Population and Employment Projections for the City-Centered Corridor", final draft, December 1979.
3. Two Rural Areas, 1975, 1980 (estimated), 1990 (revised plan), 2000 (revised plan): Association of Bay Area Governments, Projections 79, April 1979, pp. IV-14 - IV-16.

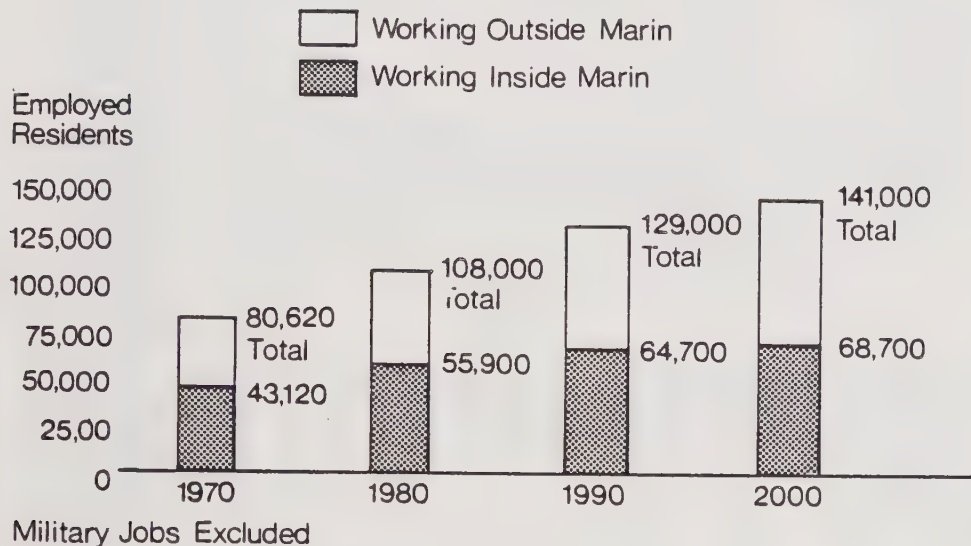
* Analysis done in 1979 indicates that these figures may have been too high.

** The 1973 Countywide Plan reported this high figure for employment in West Marin. It now appears that the estimate was too high.

low. This has two implications: (1) there are currently relatively few opportunities for Marin County residents to work in the county, and (2) many employees in the county have a difficult time affording housing costs in the county. The result is that a large amount of commuting occurs. In fact, in 1980, for every Marin County resident working in the county, there is one who works outside the county (see Figure 3.4).

Figure 3.4

WHERE MARIN RESIDENTS WORK



II. POLICIES

A. GROWTH RATE

Policies

- A-1 The rate of growth in Marin County should be managed in accordance with both the goals of the Marin Countywide Plan and those of local plans.
- A-2 The total amount of growth in a given area should be determined based on the following essential Plan policies:

- Protection and enhancement of community character
- Protection of open space and scenic areas
- Protection of natural resources
- Provision of adequate vehicular access
- Provision of adequate public facilities
- Provision of adequate housing
- Consistency with local land use policies

- A-3 Housing opportunities should be available to meet the needs of all social and economic groups within each community.

Rationale and Implementation

These policies imply an overall growth management program or plan for each area of the county. It is anticipated that within the incorporated areas of the county, each jurisdiction establishes its own techniques for managing growth, including a general plan, land capacity ordinances, zoning, etc. Within the unincorporated areas, growth management will be based, in part, on a recognition of the fiscal issues and the demand for public services and facilities associated with accommodating new development. Urban development will be encouraged to locate in or annex to existing cities. The areas appropriate for development based on the availability of urban services are delineated by Urban Service Areas in Part 5. The housing policy implies a commitment to increasing the supply of affordable housing in Marin County.

The Plan recommends that Marin County staff and officials develop contacts with San Francisco staff and officials to discuss approaches to managing job growth and encouraging housing development in the city in order to mitigate impacts of job growth in San Francisco on Marin and other counties. Similar contacts should be maintained with the Sonoma County staff and officials to discuss housing and job development.

The Countywide Plan should be reviewed on a continuing basis, under the direction of the Countywide Plan Advisory Committee. The Plan should be reviewed at least annually. If new state mandates or other changes of countywide importance have occurred, the Committee should recommend appropriate amendments to the Plan.

B. DENSITY AND LOCATION OF FUTURE DEVELOPMENT

Policies

- B-1 First priority should be given to infilling developed areas and second priority to development on the fringes of developed areas. Development in areas where public facilities are not available or where they would require costly expansion should be discouraged until such time as comprehensive plans for efficient expansion of public facilities can be implemented.
- B-2 The County seeks to create balanced communities which house and employ all income groups and which provide a full range of facilities and services. Residents should have the opportunity to live and work in the same community, and to fulfill shopping, business, recreational, and educational needs within a reasonable distance of their homes.
- B-3 The location and density of all development should be mutually coordinated with the transportation network and transit systems in order to foster energy conservation and to minimize the circulation impacts of new development.
- B-4 On all large developments, dwelling units should be sited to allow transit service to be delivered more efficiently. Dwelling units should also be sited in a manner that reduces trip length to neighborhood facilities and, thereby, allows more trips by bicycle or on foot.

- B-5 Commercial and higher-density residential development should be in areas where there is high transit accessibility and service capacity, rather than allowing sprawl or continuous strip development along freeway corridors.
- B-6 Housing should be integrated into commercial and industrial areas where appropriate.
- B-7 Development should be discouraged in those areas which have high natural resource values or which pose significant hazards to life or property. Where development is permitted in such areas, the permitted density should be low, and structures should be sited in order to minimize adverse impacts.
- B-8 Appropriate density bonuses and other incentives should be granted for including low and moderate income housing units, provided environmental and traffic concerns are met.

Rationale and Implementation

The policies are intended to provide a comprehensive framework for the future development patterns in the county. They have been formulated to actively address the serious traffic problems and the fiscal constraints faced by all Marin communities, and at the same time to strive toward creating communities which are energy-efficient and responsive to the needs of all Marin residents.

Essentially, the Plan envisions compact areas of urban development which incorporate a balance of housing, jobs, shopping, services, and recreational facilities. These urban areas are to be separated by a countywide system of open space, including recreational open space and areas left undeveloped for reasons of natural resource value or potential hazard.

A compact form of development and encouragement of infill will facilitate more efficient and orderly provision of public services. The goal is also to maintain and enhance the individual character of each community. The circulation system should then complement the land use pattern to provide both intra- and inter-area linkages.

Within each community, housing should be sited to shorten trip distances, facilitate the use of transit, and make facilities more accessible by bicycle or pedestrian pathways. A better jobs/housing balance within communities should reduce the amount of out-commuting by Marin residents. Then the overall pattern of compact urban development should facilitate the operation of the regional transit system. The important point is that land development patterns should not preclude future options to use transit and other forms of transportation that offer an alternative to the automobile. Land use policies most supportive of transit use are those which tend to cluster employment locations and other nonresidential activities. At the same time, transit use becomes less likely when residences are dispersed. In order for the system to be viable, a designated number of residences are required to be situated within close proximity to the transit route. Average relationships between residential densities and transit have been observed and reveal transit use is minimal at densities between 1 and 7 dwellings per acre; a density of 7 dwellings per acre appears to be a threshold above which transit use increases sharply; and at densities above 60 dwellings per acre, more than half the trips are made by public transportation.

The delineation of urban service areas around existing cities indicates where growth requiring urban services can best be accommodated over the next ten years. Lands outside of the urban service area should be rezoned where necessary to discourage development requiring urban levels of service. Land capacity ordinances would play a role in maintaining the open space areas that separate communities. The policies on balanced communities and coordination of land use and transportation will have to be implemented on a more decentralized basis by both the cities and the County. Implementation techniques for achieving jobs/housing balance will involve general plan revisions, project review procedures, zoning, overlay planned district zoning and economic development policies which give preference to specific types of employment.

Implementation techniques used to achieve these land use policies would include planned district zones, mixed use zones, and more conditional use provisions within existing zoning. Project review procedures, policies/ordinances on development siting and orientation, and dedication of bikeway and pedestrian pathways should facilitate the achievement of goals for circulation and energy conservation. In terms of regional circulation, provisions for siting development should facilitate the operation of the transit system. Detailed studies of development (and redevelopment) potential in transit corridors should be undertaken to arrive at density standards that support transit and minimize trip requirements.

C. HOUSING TYPE AND PRICE LEVEL

Policies

- C-1 A diversity in the range of housing costs should be promoted, and a diversity and mix of housing types and ownership opportunities should be encouraged.
- C-2 The supply of moderate and middle income housing should be increased.
- C-3 The ratio of low and moderate income housing units to the total housing stock should be maintained, and these units should be provided in a dispersed rather than in a concentrated pattern.

- C-4 The existing supply of family-size units in multiple-unit structures should be retained and additional units should be developed.
- C-5 Older housing should be preserved and rehabilitated, without significantly increasing costs to present low and moderate income residents, through use of low-interest loans and other programs.
- C-6 Incentives such as higher densities and modification of site improvement standards should be offered to private developers in suitable locations in order to achieve social and economic diversity in housing, provided that these modified standards do not result in substandard living conditions.
- C-7 Second units should be permitted in selected single-family areas, where there exists local support, with an emphasis on meeting the needs of low and moderate income housing, consistent with goals for environmental quality and preservation of neighborhood character.
- C-8 Landbanking should be established for the purpose of securing suitable sites for low and moderate income housing.
- C-9 Private, public and non-profit housing programs should be encouraged, consistent with local policies.
- C-10 The supply of rental units should be preserved and construction of new units should be encouraged.
- C-11 Standards for construction of new housing and for preservation of the existing housing stock should be reviewed to reduce costs while still protecting the public health, safety, and welfare.
- C-12 An adequate supply of housing for the handicapped should be provided with appropriate access and design features in locations where services and transportation are readily available. Inclusion of such units in new residential developments should be a condition of project approval, where feasible.
- C-13 Group living facilities should be located near shops, service centers, transit routes, and health centers, but should not be concentrated in any one area.

Rationale

Housing costs in Marin County have risen rapidly during the 1970's, and the increases are continuing. Because the increases in cost of both owner and rental units have far exceeded increases in personal income, Marin's housing problem is becoming steadily more severe. Low and moderate income households find housing choice in Marin very limited. Modestly priced "starter" houses are especially difficult to find. In order to buy the average single-family detached house in Marin

County in 1979 (estimated at \$141,555), a family would have to have an annual income of about \$50,000 and/or substantial equity. Renters are paying more than one-fourth of their incomes on rent. Many people employed in Marin cannot afford to live in Marin, contributing to traffic congestion caused by commuting and thwarting the County's goals for economic balance. These trends, which are unlikely to alter in the near future, continue to cause Marin's difficulty in meeting low income housing needs, and create obstacles to Marin's addressing its "fair share" of the region's low income population as is required by state law. Although the provision of housing that is affordable for low and moderate income groups in Marin County is difficult, it is not, and should not, be considered unattainable. Goal I of the Countywide Plan calls for the County to encourage social and economic diversity within communities and the county as a whole. A less than full commitment toward achieving this goal cannot be accepted. It is essential that Marin County expand its supply of affordable housing.

Implementation

Efforts to provide affordable housing in Marin County will be difficult but may be achievable given a strong commitment to its provision. The job is clearly one that requires a public/private partnership. Local realtors, developers, and lending institutions should join the County in investigating and developing innovative financing mechanisms. Various tax incentives should be examined that would encourage developers to develop housing for low and moderate income households.

The provision of new low and moderate income housing units should be encouraged through the use of one or several of the following techniques.

- o Inclusionary zoning standards which provide a bonus for the construction of low and moderate income units as part of a larger development project.
- o Condominium conversion ordinances which require or encourage provision of a percent of an apartment conversion for low and moderate income housing. Conversion of apartment units to condominiums should be prohibited when a housing emergency exists. Each community needs to define when this situation occurs. For the unincorporated parts of the county, a housing emergency is defined by a countywide rental vacancy rate of 5 percent or lower or a multi-family rental proportion of less than 25 percent of the total housing stock. When no housing emergency exists, conversions may be allowed if sufficient provisions are made for inclusion of units for low and moderate income households, upgrading of units to condominium standards, and adequate notification to and relocation assistance for existing tenants.
- o Second unit ordinances which encourage the addition of units which are affordable by low or moderate income households.
- o Mixed land use designations which can expand the amount of land available for residential development, possibly stipulating the inclusion of low and moderate income housing.
- o Revision of building standards that inflate the cost of residential construction, while only marginally improving the structure for health and safety purposes, provided that this revision does not affect neighborhoods detrimentally.

The County should continue to expand rental subsidy, market intervention, and facilitative programs to provide affordable housing and to rehabilitate existing units. These include programs for the construction and operation of public housing, code enforcement, and loan programs for the rehabilitation of existing housing stock occupied by low and moderate income households, and support for legislative and financial provisions for affordable housing. The County should seek funds from regional, state, and federal agencies to supplement inadequate local resources.

Housing projects receiving public assistance, as well as appropriate private developments, should include units for the handicapped wherever feasible. These units should be designed with special features for access and safety, and the projects themselves should be in locations where transportation and other services are readily available to the handicapped. Local jurisdictions should encourage group quarters which accommodate the handicapped, although they should not be concentrated in a single part of a community. State law specifies that group quarters accommodating six or fewer people shall be considered a residential use and not subject to a special use permit.

Programs should be available in the community to assist people with disabilities to make their homes more accessible. Such programs should include information on design, construction and financing.

D. ECONOMIC DEVELOPMENT

Policies

- D-1 Future economic development in Marin County should contribute to the creation of balanced communities where residents have opportunities for employment, shopping, services, and recreation with a variety of types of economic development which provide local opportunities for employment, reduce the need for people to commute, broaden property and sales tax bases, and have the least environmental impacts in terms of air, noise, and water pollution should be stimulated and given preference.
- D-4 A diversity of employment opportunities should be available in Marin County in order to provide jobs for residents of all income levels and in order to cushion the county's overall economy against a slump in any one sector and against seasonal fluctuations.
- D-5 Business activities that meet the employment needs of Marin residents should be encouraged to locate in Marin County.
- D-6 Studios and work space for artists, craftsmen, and other home occupations throughout the county should be encouraged through zoning policies.
- D-7 Agriculture, commercial fishing, and rural economic activities should be encouraged through zoning and taxation policies in order that they become more viable in Marin County.
- D-8 Support services such as child care centers should be encouraged to locate near employment centers in order to enable more individuals to work full-

time.

Rationale and Implementation

The main rationale behind the economic development policies is the desire to:

- o reduce present levels of out-commuting in order to relieve traffic problems and conserve energy;
- o achieve a better jobs/housing balance that enables residents to live and work in the same community;
- o achieve a better retail facilities/jobs/housing balance that enables residents and employees to satisfy their daily needs for retail goods and services in the community;
- o increase employment opportunities for all residents of Marin;
- o minimize impacts caused by commercial development; and
- o increase local and County tax bases.

Recent changes in taxation policies have dramatic implications for the types of economic development which will be advantageous for cities and the County. Retail development has become more attractive because revenues from sales tax are inflation-proof and are not subject to the limits set by Proposition 13. Industrial and commercial/office developments, on the other hand, have become less attractive because the property tax revenues they generate have declined substantially and because these revenues are likely to grow more slowly than inflation (since industrial/commercial property rarely changes ownership). As long as industrial/commercial development utilizes existing infrastructure, however, it should still generate revenues in excess of costs.

The Economic Development policies of the Plan should be implemented through the project review and environmental assessment procedures of the appropriate jurisdictions. Preference can be given to those projects which further the community's needs in terms of economic development. Any adverse impacts resulting from greater economic activity on the community should be corrected through appropriate mitigation measures.

The County should continue to support the efforts of the Overall Economic Development Plan Committee. The County should also provide information to potential employers or developers who wish a valid assessment of the County's economic climate and development potential. The County's economic development policies and other economic development issues should be further evaluated.

E. LOCATION OF FUTURE ECONOMIC DEVELOPMENT

Policies

E-1 Employment should be encouraged to locate in areas where there exist high

transit accessibility, public services, housing to meet employee needs, and complementary retail and commercial uses.

- E-2 Economic development should be encouraged to locate in areas of the county with the lowest ratio of jobs to housing, if feasible.
- E-3 Services used on a daily or more-than-weekly basis should be located within short distances of housing and other businesses in order to reduce transportation energy costs.
- E-4 Existing commercial and industrial areas should be preserved and expanded. In particular, traditional downtowns should be enhanced so that they continue to add to a community's identity.
- E-5 Commercial development should be located, sized, and designed to minimize energy consumption on site and to reduce energy used in traveling to and from other destinations. Commercial centers should be designed to provide a variety of services (including park-and-ride facilities for commuters and travelers to regional shopping facilities) that allow energy-efficient and multiple-purpose trips.
- E-6 The multiple-use development proposal for Hamilton Air Force Base should be pursued. The master planning of the Silveira Ranch-St. Vincent's area to the south should be compatible with the multiple-use development proposal for Hamilton Air Force Base.
- E-7 Sponsors of all new and expanded major commercial and industrial projects should provide transit mitigation measures, since such projects will require transit services. Appropriate measures include, but are not limited to, capital improvements, shuttle services, etc.

Rationale and Implementation

The rationale behind the policies for the location of future economic development relates to the overall goals for balanced communities, improvement of the traffic situation, and conservation of energy. Encouraging economic development in areas with predominantly residential use should make it much more likely that new residents of Marin County will live closer to work rather than commuting elsewhere. Present residents would also have the opportunity to work in their own community.

Encouraging employment in areas with good transit accessibility should increase the percentage of employees who take transit to work instead of automobiles. The purpose of encouraging complementary retail and service facilities in these same locations is to enable employees to take care of daily shopping and services needs near their workplace without the use of the automobile. The concentration of commercial and employment uses, possibly combined with some higher density housing, should also serve to enhance community identity and increase the vitality of these centers.

Implementation of these locational policies can occur in a decentralized manner, with each jurisdiction preparing land use and economic development plans for their areas. These plans should address both the development (and potential redevelopment) within their central commercial areas as well as the possibilities for mixing

employment, commercial, and residential uses. Specific implementation techniques should include: project review, planned district zones, mixed use zones, conditional use provisions, and environmental assessment procedures.

Mixed use development, including combined residential and commercial development and combined shopping center and park-and-ride facilities should be encouraged. The County should explore methods to provide affordable housing for persons working in Marin, including methods involving employer participation, and at the same time should explore ways to improve public transportation for workers who commute to and within the county.

F. COMMUNITY FACILITIES

Policies

- F-1 All types of public facilities--schools, transit, water and sewer lines, and sewage treatment plants--should be planned and built in ways that will support Countywide Plan policies and city policies for growth rates and location of development.
- F-2 Levels of public and private services in developed and developable portions of the City-Centered Corridor should be compatible with the level of development encouraged in these locations, and an appropriate and necessary level of services should be provided in village areas. A rural level of services should be provided elsewhere in the county.
- F-3 Utilities and treatment facilities serving developed areas and those areas designated as developable in the Plan or in local plans should be improved before extending service to new areas; new services should only be provided for those areas designated as developable in the Plan or in local plans. Special districts should relate their activities to the Countywide Plan and local plans.
- F-4 In general, new development should pay the cost of new infrastructure it requires and the public services it receives. Exact delineation of what constitutes a "fair share" should be the subject of further detailed study.
- F-5 Consolidated service areas should be defined and programs established to combine the delivery of governmental services wherever possible.
- F-6 Public facilities should be designed to minimize both short-term and long-term construction, operation, and maintenance costs.
- F-7 Wastewater should be recycled for reclamation and reuse as soon as feasible. Bay and ocean outfalls will be for interim and emergency discharge only.
- F-8 Libraries, social service offices, recreation centers, and other community facilities should be placed in locations served by public transportation.
- F-9 All community facilities should be designed or rehabilitated to remove barriers to persons with handicaps, in order to encourage their full participation in all aspects of community life.

F-10 Such facilities and uses as may be necessary to support the arts in Marin County should be encouraged.

Rationale and Implementation

Decisions regarding the extension of public services and the provision of community services have major implications for the type, location, and density of development that will occur. Thus, it is very important that these capital improvements decisions be related to the County's and cities' objectives for growth rates and location of development. Capital facilities plans and proposals should be reviewed for consistency with the Countywide Plan and cities' plans. Districts should not expand their efforts to serve development projects unless the projects have the tentative approval of the appropriate planning agencies.

A basic premise underlying future decisions on the provision of public services and facilities is that more intensive development should be directed towards areas where "urban levels" of service are or would be available. At a minimum, such services would include police, fire, water, and sewers. Urban levels of service should not be available outside of a city's Urban Service Area or an adopted Community Plan. Extension of services would be discouraged until the city or service agency is capable of providing services and until undeveloped or underdeveloped areas in infill areas are first developed.

PART 4. TRANSPORTATION

I. BACKGROUND

A. CITY-CENTERED CORRIDOR

The transportation program of the Countywide Plan supports the overall goals of the Plan and is particularly designed to meet the realities of energy problems and a shrinking funding base. A schematic depiction of the Countywide Plan's transportation network for the City-Centered Corridor is provided in Figure 4.1.

The 1973 Plan recommended transportation improvements that would maintain a high level of mobility with minimum adverse environmental impact and that would reinforce community development goals. The costs of such a program were recognized to be high and implementation would clearly require a strong commitment from the people of Marin. Since 1973 some of the transportation measures recommended in the Countywide Plan have been implemented on schedule, but most—particularly those for local travel—have not. Funding to expand local transit service was resoundingly defeated in three tax elections. The public is obviously not prepared to finance the transportation services recommended in the 1973 Plan.

Thus, the recommendations presented in this Plan update would achieve a system scaled back from the 1973 Plan, but one that would maintain a minimal level of mobility in the County. However, to implement even this scaled-back system and to maintain this level of mobility will require more funding than is currently available. Highway user fees collected on each gallon of gasoline have not been increased since 1961, and the value of the dollar has decreased to one-third of its 1961 level. Funding programs for transit that were increased in the early 1970s are now either stagnant or unable to keep pace with inflation.

It is clear that new sources of funding must be found; if they are not, serious congestion problems will occur in the next decade. The policies listed below are based on the assumption that additional sources of funds, such as those outlined in the section on financing, will be found to implement the scaled-back transportation goals of the Plan.

B. WEST MARIN

For West Marin the major transportation problem is, and will continue to be, the traffic congestion caused by visitors to the area on weekends. A steady growth in visitor travel has occurred over the last several years and is projected to continue at about 2.5% per year. This growth will primarily originate in areas remote from West Marin and not subject to control by the land use policies of Marin County. Visitors are expected to be attracted mostly by the natural beauty of the rural and coastal areas. Most of the increased demand for visitor travel in West Marin will

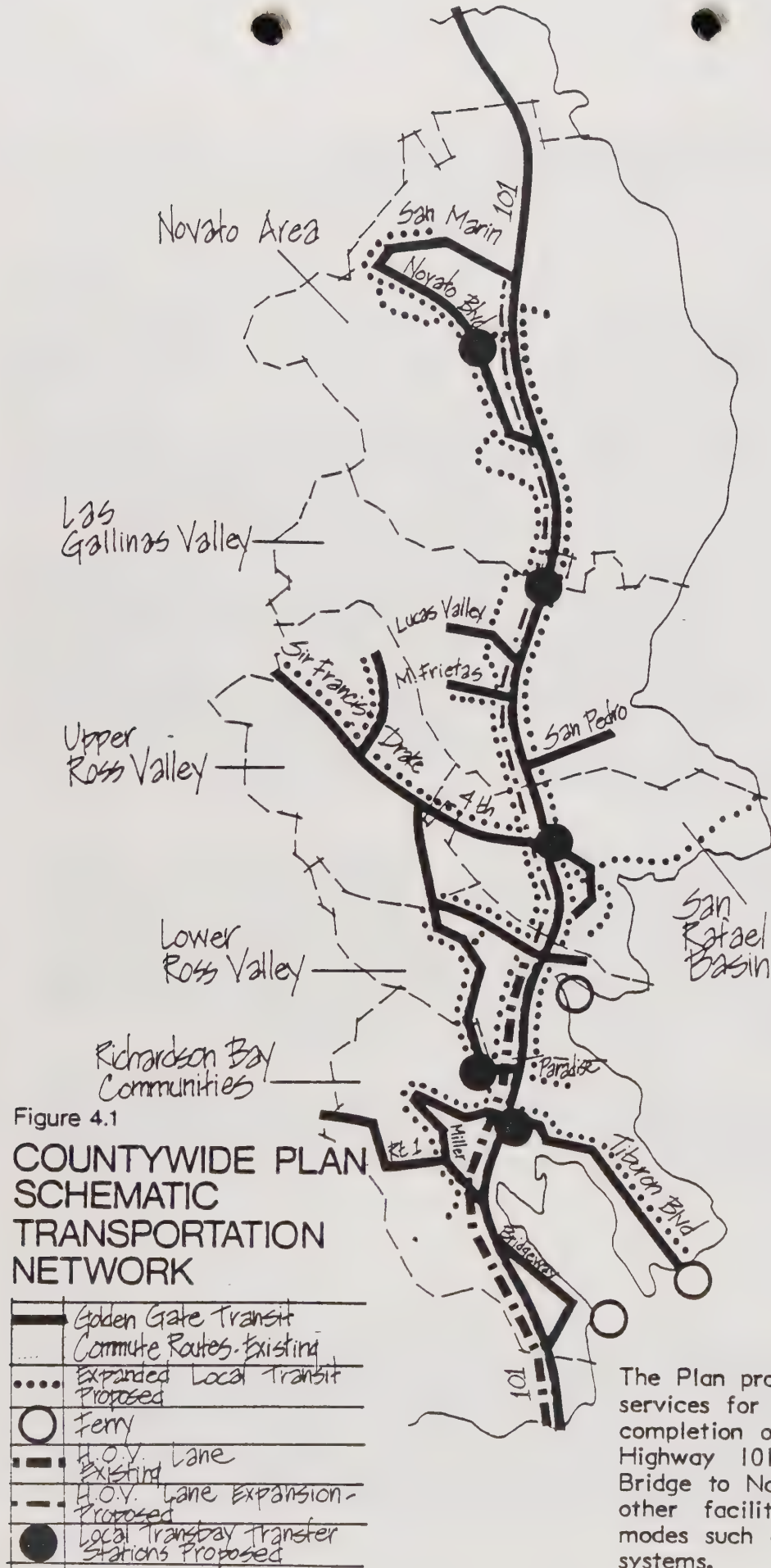


Figure 4.1

COUNTYWIDE PLAN SCHEMATIC TRANSPORTATION NETWORK

The Plan proposes expansion of transit services for local and commuter trips, completion of an HOV lane system on Highway 101 from the Golden Gate Bridge to Novato, and development of other facilities for energy efficient modes such as bicycles and pedestrian systems.

be by private automobile. Notwithstanding the fact that all local, state and federal agency plans call for increased public transit service to the area, there will simply not be sufficient funding to provide a transit service with capacity to meet the growing travel demand.

Because the capacity of the major access roads is constrained by State and County policy and the potential for major expansion of public transit is also limited, it is clear that the growing demand for access to West Marin will necessarily result in increased traffic congestion.

II. POLICIES

Policies aimed at the problems of both the developed portions of eastern Marin and the rural areas of West Marin are presented below under four major policy groups.

A. TRANSPORTATION AND ENERGY CONSERVATION

Policies

- A-1 Local governments should find ways to encourage people to use more energy-efficient transportation such as: preferential parking for carpools and vanpools, safe bicycle routes, park-and-ride lots for commuters, pedestrian walkways, etc.
- A-2 Private developers and employers and large public employers, such as county government and school districts, should explore programs such as: vanpools, carpools, subscription bus service, staggered or flex-time work hours, transit use incentives for employees, provision of shower facilities for employees who bicycle or jog to work, etc.
- A-3 In low density areas of the City-Centered Corridor, which are not near already developed service areas, new developments should be encouraged to include shops for food and convenience goods serving local residents, so that long trips will be minimized.

Rationale and Implementation

Transportation uses over half of all energy consumed in Marin County. If energy use is to be reduced, transportation services need to be made more efficient. Several of the low cost approaches listed above should be used by local jurisdictions and private developers to encourage the use of energy efficient vehicles.

One of the disadvantages of rural living is its requirement for higher than average use of transportation energy due to long distances between homes and services. Trips for food, banking, medical services, etc. can be reduced in length if these basic services are provided in reasonable proximity to residential areas.

B. TRANSPORTATION AND ITS RELATION TO LAND USE AND ENVIRONMENTAL QUALITY

Policies

- B-1 The scale, location, and pace of development of transportation services should support the Plan's goals of controlled growth and high quality natural environment.
- B-2 Energy-efficient modes of transportation should be expanded to accommodate the travel demands projected under existing local development plans.
- B-3 The need to expand local transit services as energy costs increase should be addressed through exploration and implementation of any and all local funding sources.
- B-4 The plans for West Marin communities should be reviewed periodically in accordance with an analysis of transportation system capacity which accounts for increased visitor travel to each community.
- B-5 Transportation service should be developed which can accommodate the maximum number of visitors to the rural and coastal areas while at the same time cause minimum disruption to the natural environment.

Rationale and Implementation

In order to achieve the development goals of local general plans some expansion of the transportation system will be needed. Improving access to local job centers is crucial to achieve economic development goals and could be accomplished in part by providing direct access between the Highway 101 HOV lanes and major local job centers, especially for downtown San Rafael, Northgate/Civic Center area, Marinwood/St. Vincent's, and Hamilton Air Force Base. Additional local access points should be studied in southeast San Rafael and in the Lower Ross Valley.

It will not be possible to expand transportation services so that all travelers may go wherever and whenever they wish. Limits on funding and energy availability require recognition that single occupant autos will not receive as high a level of service in the future as occurs in 1980. The Plan includes recommendations which will permit bus and carpool uses to bypass most of the points of severe auto congestion.

The plans for new development in most West Marin communities need to account for the fact that available transportation system capacity for local residents will be sharply reduced on several weekend days each year. Transportation system capacity should be taken into account during periodic revisions of community plans.

The most severely affected area is Stinson Beach/Bolinas where visitor travel already congests access routes on a few weekends each year and is projected to grow so that routes will experience severe congestion on almost all good weather weekend days. The San Geronimo Valley and Point Reyes Station/Olema areas

will begin to experience congestion levels similar to those which now occur near Stinson Beach prior to 2000. The buildout of these areas in accordance with existing plans will produce travel demands which, when combined with visitor travel needs, far exceeds the capacity of major travel routes.

C. TRANSPORTATION MODE EMPHASIS

Policies

- C-1 Reduction in the use of the single occupant automobile should be encouraged by increasing use of high-occupancy vehicles (carpools and vanpools), public transit, and non-motorized modes such as bicycles and walking.
- C-2 Increased use of carpools should be encouraged, with a goal of 100% expansion for local travel and 50% expansion for transbay trips from the rates found in 1980.
- C-3 Public transit should be expanded by one-third for transbay travel and in accord with the Local Transit Services Plan prepared by the Marin County Transit District in fall 1979 for local transit including local transit services for rural and coastal areas of West Marin.
- C-4 Bicycle use and walking should be encouraged as significant modes of transportation and should be encouraged for shorter daily trips to work, shopping, and other activities. Development of a comprehensive system of bicycle routes and amenities should proceed in accord with the Bicycle Plan for Marin adopted by the Board of Supervisors in 1975.
- C-5 The County airport at Gnoss Field should be the only civilian airport facility in Marin County and shall be for general aviation only. All other civilian facilities should be phased out with the exception of the heliport and the seaplane base on Richardson Bay which may be maintained for water oriented visitor/commercial use. The development of an off-airport terminal (OAT) in Marin should be considered to improve the county's ground transportation access to regional commercial airports.
- C-6 Auto access to the recreational area of West Marin should not be increased. All roads to West Marin are considered scenic highways for County planning purposes but official scenic highway designation shall not be sought from the state because it could encourage added auto use by visitors to Marin.
- C-7 All roads in West Marin shall be maintained as two-lane routes with improvements limited to projects for safety purposes only.

Rationale and Implementation

The recommended change in modal emphasis has as its goal maintenance of private auto mileage at existing levels initially with decreasing mileage over the plan period as alternative modes of transit are developed and gain in popularity. This means that new development will not add more auto travel demand each year than

can be accommodated on the alternative mode system. Areas experiencing high rates of growth would also see greater auto use in their immediate locale, but on a countywide basis the goal to initially maintain and then substantially reduce auto use can be achieved if the alternatives are available.

If the Plan's goals for increased carpool and transit are achieved, it will be possible to accommodate all travel due to new development in these modes so that overall auto mileage will not increase. The shift from auto usage to greater use of transit and carpools at each of the major congestion points along Highway 101 is shown on Figure 4.2. However, it will still be necessary to assure local vehicular access to new development areas meaning that increases in auto usage will necessarily occur in the immediate vicinity of new growth areas. Increases in local area auto usage will be offset by decreasing auto use on a countywide basis.

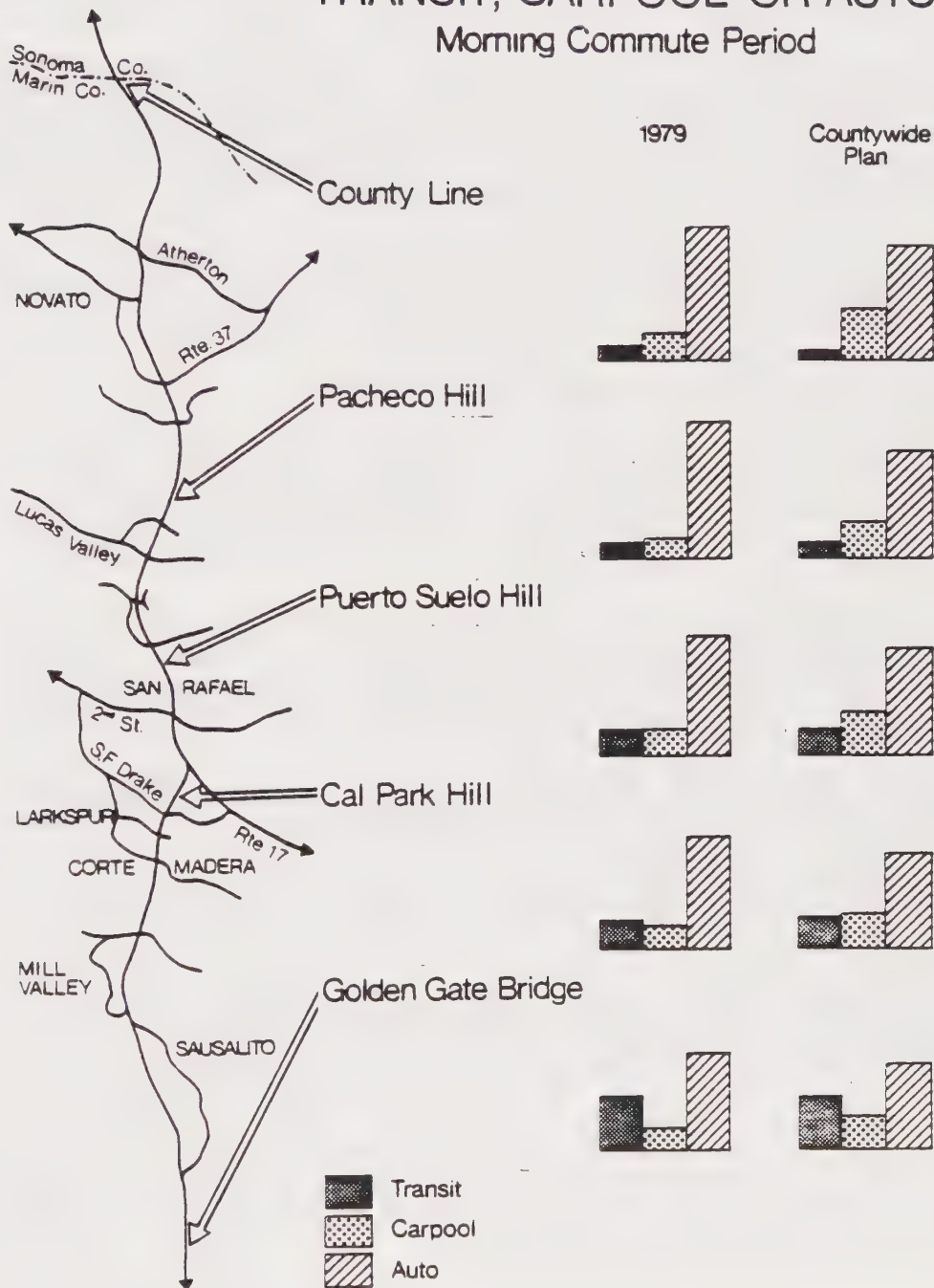
A shift from auto to other modes can be encouraged by making public investments in transit services and bicycle and pedestrian facilities. No funding should be expended for the primary purpose of increasing the capacity of the road system in West Marin.

D. MAJOR TRANSPORTATION PROJECTS

Policies

- D-1 Most bottlenecks on Highway 101 should be relieved over the 20 year planning period.
- D-2 The existing Golden Gate Transit bus fleet should be expanded.
- D-3 A system to permit energy-efficient HOV traffic to bypass the most congested portions of Highway 101, including direct access for HOV traffic to local job centers, should be considered for the development of Highway 101.
- D-4 Because of limited funding programs, minimum cost methods should be used whenever possible to gain added pavement needed for HOV traffic.
- D-5 The automobile capacity of the Golden Gate Bridge should be maintained at the existing levels.
- D-6 The Northwestern Pacific Railroad right-of-way or an equivalent parallel route should be preserved for ultimate use as a transportation corridor.
- D-7 The ferry system should be aggressively marketed with the intent of increasing ridership during the commute period and increasing the system's energy efficiency.
- D-8 Local transit services should be expanded in accord with the Local Transit Services Plan, to offer basic service aimed primarily at local commuters,

Figure 4.2
 SHARE OF TOTAL TRIPS USING
 TRANSIT, CARPOOL OR AUTO
 Morning Commute Period



The Countywide Plan proposes a reduction in the use of autos during the commute period and an increase in the use of transit and carpools.

students, and the elderly and handicapped. The Plan recommends six categories of service: trunk lines, midday shuttles, commuter and college express routes, schoolday supplemental, and special services. Figure 4.3 shows the recommendations of the Local Transit Services Plan. West Marin services include a commuter express route in the San Geronimo Valley and a daily local route between most of West Marin communities and service centers in East Marin. Bus service over the Richmond Bridge should be improved and extended.

- D-9 Local street programs should be designed to provide better service for energy-efficient transportation modes such as transit, carpools, vanpools, motor bikes, bicycles and pedestrians, and to reduce energy consumption by improving traffic operations. Use of Federal Aid Urban (FAU) Program funds for this purpose is recommended.
- D-10 A system of visitor information and staging areas combined with Park Service shuttle bus routes should be developed as recommended in the Golden Gate Recreational Travel Study, 1977. First priority for these programs is the most severely congested portion of the transportation system in the Tam Valley/Stinson Beach areas.
- D-11 A parking plan for the most visited areas of West Marin should be developed based on prohibiting parking except in designated areas and sizing designated areas to match capacities of access routes. Improved enforcement programs including increased fines and towing, should be adopted if necessary to implement this plan.
- D-12 All existing recreational transit services should be maintained so that the transit dependent may continue to use the National and State Parks. Substantial expansion of recreational transit is recommended only after funding for the Local Transit Services Plan is assumed.
- D-13 A system of bicycle and pedestrian routes linking most West Marin communities should be developed by the County's Parks and Recreation Department, with assistance from the Public Works Department. Safety barriers should be installed to protect bicycle routes along heavily traveled roads, such as Highway 1, and parts of Sir Francis Drake between Point Reyes Station and Inverness.
- D-14 The County will direct its efforts toward full accessibility for the elderly and handicapped on fixed route and paratransit transportation services. Bus and train interiors should include provisions for the seating of disabled persons in comfort and safety. All transportation terminals should be designed to accommodate use by disabled persons.
- D-15 New developments, both residential and non-residential, should include pedestrian circulation systems, curb cuts to facilitate wheel chairs, and parking spaces marked for disabled persons.

Rationale and Implementation

City-Centered Corridor. The best program readily available to reduce bottlenecks on Highway 101 while also encouraging energy conservation is the development of

special lanes and interchanges for HOV traffic. Recommendations to improve mobility on Highway 101 are included on the Corridor Plan, illustrated in Figure 4.4. The cost of a full HOV lane system from the Golden Gate Bridge to Novato is approximately \$183 million in 1985 dollars.* It is possible, however, to provide a system for HOV traffic which can bypass the most congested areas of Highway 101 and directly serve local employment areas at a far lower cost. The County should continue to pursue the total system as a long range goal but focus primary effort on the highest priority portion of the system which can be built within a funding level that is probable in the next ten years.

The safety of nonstandard roadways should be evaluated by experts on highway design and law enforcement. To the extent that safety can be provided on the reduced standard facilities, lower cost approaches should be pursued in order to get maximum transportation system development for minimum expenditures. The three mile section of freeway between the Golden Gate Bridge and Marin City is an example of a freeway which operates successfully with little or no shoulders and substandard lane widths. Design of the HOV facility should also take aesthetics into consideration, in particular minimizing the visual impacts of noise barriers.

Capital costs for other portions of the first priority plan in 1985 dollars include:

Transbay service - 25 coaches	\$6 million
Local bus service - 30 coaches	\$7 million
Local street programs	\$20 million
Arterial bicycle routes	\$2 million

The plan recommends that the FAU program be used as the funding source for local street projects aimed at improving transportation efficiency. Local street programs should be primarily intended to improve traffic operation and to assist energy efficient modes such as transit and carpools to bypass congestion points. The FAU program could also directly fund certain portions of the transit system's capital requirements such as coach acquisition and fixed facilities at stops and stations. The details of the local street programs and use of FAU program funds should be left with each jurisdiction and the FAU Committee.

With the exception of the local street program which can be funded from the existing FAU program (assuming that program is continued), the cost of the recommended plan exceeds available funding. If even this level of transportation system development which will only marginally meet travel demands of local general plans is to be provided, the jurisdictions of the County will have to join together to aggressively pursue added funds. The following are suggested as approaches to the financing problem:

- o Coordinate local policy to form a countywide "grantsmanship" program aimed at securing state and federal funds for energy-efficient transportation systems.

*Cost estimates are for rough planning purposes only and are based on 1980 costs that have been inflated by 15% per year to the year 1985. 1985 dollars are used in order to provide a better idea of the funding requirements when the projects could be feasibly implemented.

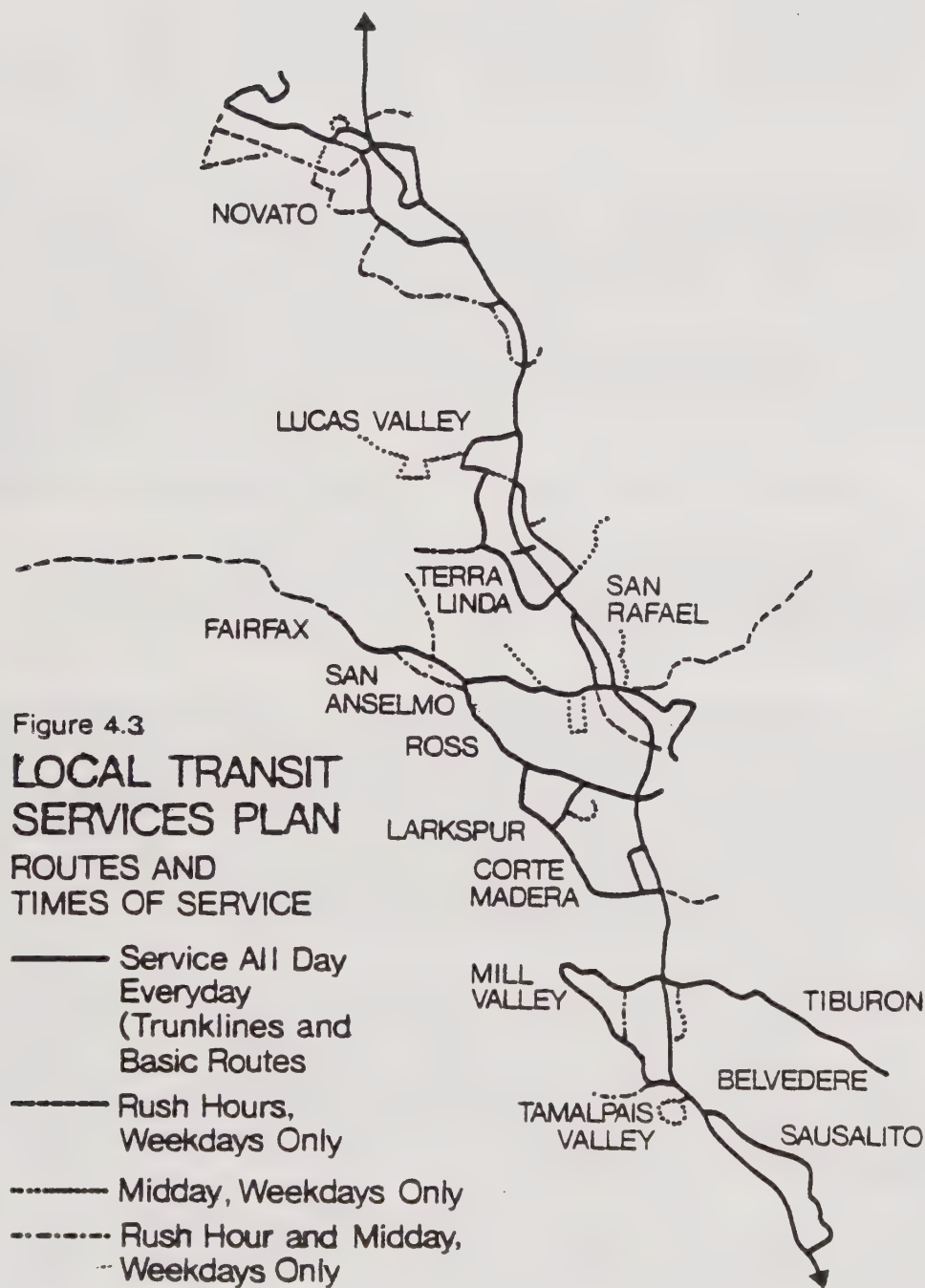


Figure 4.3

LOCAL TRANSIT SERVICES PLAN ROUTES AND TIMES OF SERVICE

- Service All Day
Everyday
(Trunklines and
Basic Routes)
- - - - - Rush Hours,
Weekdays Only
- Midday, Weekdays Only
- . - . - . Rush Hour and Midday,
Weekdays Only

The Plan proposes six categories of service including trunk lines, midday shuttles, commuter and college express routes, schoolday supplemental, and special services.

- o Consider re-alignment of existing institutions where public support for expanded program has not been developed. Local transit, for example, may have to be developed at the local level before a countywide approach can be successful. Cities where voters have supported local transit tax measures should consider municipal transit services for their areas as a first step toward a countywide program.
- o Charge the users of systems a greater share of the costs when expansion is needed. For example, the costs of transporting people across the Golden Gate should be borne by those using the crossing. The Golden Gate Bridge District should consider increased tolls for single occupant vehicles both to encourage energy conservation and to fund expansion of transit, carpool, and vanpool programs.
- o Use revenue programs that have not traditionally been sources of transportation funds such as redevelopment agencies, special benefit districts, assessment districts, long-term indebtedness, and municipal funding of transit.
- o Require all developers to provide private funding to offset the costs of serving each area not only in terms of local access streets, but to include arterials, freeway interchanges, major HOV lanes, and transit projects as well.

The Northwestern Pacific Railroad right-of-way is a valuable transportation corridor and should be preserved for ultimate public use. It does not appear appropriate, however, to develop the right-of-way until some time after the completion of the HOV lane project. Studies by CALTRANS indicate that even using very optimistic patronage estimates, a passenger rail service on the right-of-way would not, in the short run, provide service equal to the HOV lane on Highway 101. Rail service may, however, be a viable alternative in the long run. Acquisition would be accomplished by one, or a combination, of the major transportation agencies in the County such as CALTRANS, Golden Gate Bridge District, Marin County Transit District, and/or cities.

The right-of-way may also be used to form the spine of a new development area from the Civic Center to Hamilton Air Force Base. With proper development patterns and funding mechanisms, such as special benefit districts, an energy-efficient new development area of residential and employment land uses could be developed which would support the development and operation of light rail transit on the railroad right-of-way.

West Marin. Because of severe limitation on existing transportation funding programs, major expenditures to solve the transportation problems of West Marin are not likely in the next several years. However, by placing emphasis on making the existing system perform more effectively some relief in the overall problem can be achieved at a relatively small cost. The key features recommended to make the existing system work better are an extensive visitor information program and a parking management plan. The desire by visitors to travel to West Marin by private car can be modified if the difficulties of congested roadways and lack of parking are made known and if alternatives to travel by auto are available. The ever increasing growth in visitor travel need not occur at the 2.5% per year rate described above if a comprehensive strategy for information system and parking controls is worked out between county and park agencies.

A park information center and vehicle staging area has been suggested for the Manzanita Commuter Parking Area by a number of agencies over the past several years. This project is an excellent example of the kind of information and travel program needed and should be implemented as soon as possible.

An alternative would be to inform visitors of those routes to other portions of the Marin and northern coastal areas which are not congested and where parking is available.

The location of the information center along Highway 101 is important so that traffic may be diverted from local routes before it reaches existing communities. The Mt. Tamalpais Park Plan proposal for a staging area on Diaz Ridge is not recommended because traffic would have to pass through Tamalpais Valley, a very congested area, before it could reach the proposed parking area. The Manzanita commuter parking lot, which is virtually unused on weekends, is an excellent spot to begin the visitor intercept management program. As congestion builds on more northern access routes, such as Sir Francis Drake Boulevard, the Larkspur Ferry Terminal may be a good location for a second information center and auto staging area.

As was mentioned above, a parking management plan for the most visited areas of rural Marin is a key factor which will permit county and park agencies to have some control over visitor access. By prohibiting parking in the most visited areas of West Marin except for designated areas and by setting the number of authorized parking spaces in accord with the capacity of access routes to each area, a tool to limit auto traffic can be established. Both the County and the park agencies will need to be prepared to make a substantial commitment to the enforcement of the parking program. This effort will be small, however, when compared to the costs of alternative solutions to the access problems such as major public transit expansion or increasing the capacity of access roadways. The costs of the parking program will also be offset by the fines collected, particularly if visitors refuse to heed warnings of parking limitations.

The parking program will need to be carefully worked out among the local communities, county government, and the park agencies. Existing sites with high usage rates but without organized parking areas such as Red Rock Beach and Hagmaier Pond will need special attention to assure continued use of the area can be maintained while also controlling the safety and number of parking spaces.

To implement the visitor information and parking management plan the County will have to work with the National and State Park agencies. The National Park Service has already accepted a major role in providing transportation service to the Golden Gate National Recreation Area and Point Reyes National Seashore. The General Management Plan for these two areas indicated that the Park Service will continue to actively request funds from Congress to implement the transportation proposals for which it is responsible. Information centers, staging areas, within park shuttles and parking management are suggested by the General Management Plan as appropriate National Park Service responsibilities. The State Parks Department has indicated only very limited interest in funding transportation programs to date. CalTrans directional signs along State routes should be added, to explain more clearly alternate routes and recreational destinations in West Marin.

Implementation of the recommended transportation program will require active pursuit by the County of all potential funding from federal and state sources. In addition, county government should be prepared to increase the parking enforcement budget of the Sheriff's department to assure the parking management program is a total success.

Because transit funding will be extremely limited over the next several years the services recommended in the Local Transit Services Plan for a commuter express route to the San Geronimo Valley and a daily local route linking most West Marin Communities are the only transit services proposed for ongoing funding from traditional public sources. Even these services will be difficult to establish as they are currently dependent on the Transit District receiving grants from federal and state programs as well as the San Francisco Foundation. With the major current transit needs in the more urban portions of the county it is not recommended that transit funds beyond those discussed above be expended on West Marin services until the implementation of the entire Local Transit Services Plan is assured.

The communities of West Marin may wish to look beyond traditional transit programs in order to provide services to those who do not have access to a car. A center to coordinate carpools might be staffed by volunteers. Drivers going "over the hill" would check in to see if someone without a car needed to make a similar trip. A second concept would be for communities, improvement associations, or special districts, to sponsor a demand oriented service using a station wagon or van. This type of service would require some funding but the cost level would be low if volunteer drivers could be recruited. Because funding for transit is very limited, West Marin communities will need to consider new approaches to providing transportation if a level of service beyond the very basic type described above is to be provided.

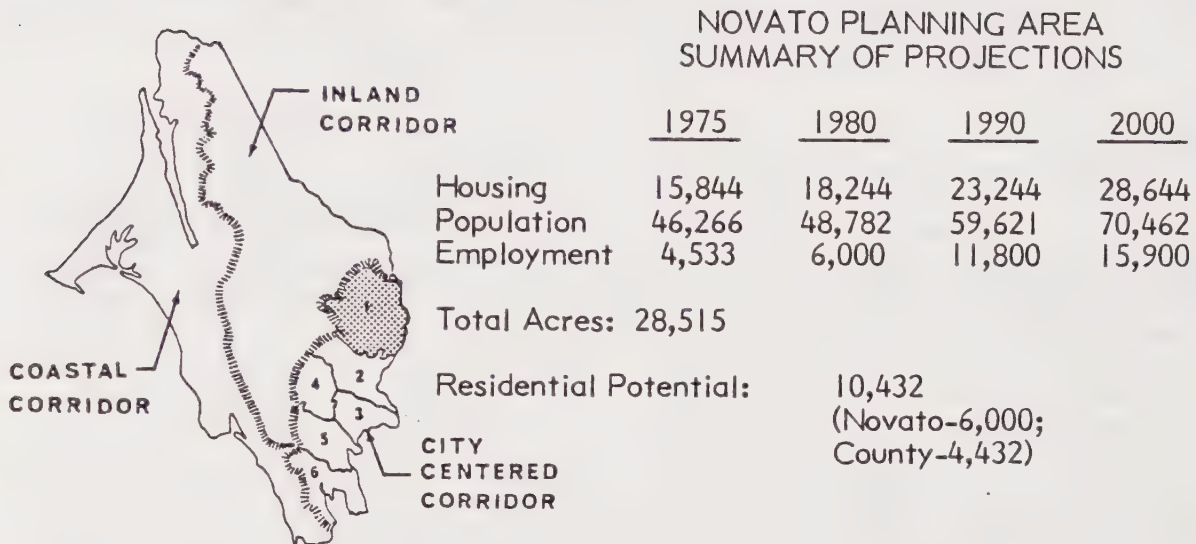
To improve the bicycle and pedestrian access among and within local communities of West Marin a comprehensive path and/or route system needs to be developed. The exact location and extent of these routes should be worked out with each community. One direct and relatively inexpensive method to provide a safe place for bicycles is to add shoulders to existing roadways. Where this method is acceptable to local communities, the County's Public Works Department should routinely pave shoulders whenever a road is being re-surfaced. However, paths along Route 1 and other heavily traveled roads should not be signed until safety barriers are installed.

Where routes separate from the roadway are needed, they should be constructed as soon as funding can be developed. The development of a comprehensive route system should be the County Public Works Department's top transportation priority for West Marin.

PART 5. PLANS FOR PLANNING AREAS

I. BACKGROUND

A. CITY-CENTERED CORRIDOR



Novato Planning Area

Growth. The dispersed, low-density growth pattern of the Novato Planning Area, if it continues, is expected to cause future fiscal and energy problems. Setting a desirable growth rate through a management program has narrowly failed in referendum voting. Over 600 parcels in unincorporated enclaves were recently annexed. A recent LAFCo study proposes the annexation of lands within an urban service area in lieu of the former sphere of influence limitations, which would have included the whole planning area. The recently revised Novato General Plan provides for a more compact land use pattern and defines Urban Service Areas in harmony with County and LAFCo proposals.

Housing. Novato's housing is still more modestly priced than the rest of the County's, but new units and most existing ones have in recent years escaped the reach of moderate income families. Lower priced multiple units could be expected to fill the market, but of the projects approved or under construction now, the mix still favors the single-family unit, and condominiums instead of apartments are being built in multi-family areas.

Commercial Centers. A regional shopping center at Rowland Boulevard and Highway 101 was recently approved. Hahn Shopping Center is proposed to have over three-fourths million square feet of commercial space and to draw from a market area from San Rafael to Rohnert Park. In contrast, Novato's downtown is experiencing revitalization. Novatans primarily shop at large neighborhood shopping centers, which, although located on bus routes, are usually reached by car.

Employment Centers. Future employment in Novato is expected at Hamilton Air Force Base, at the Firemen's Fund facility at San Marin and 101, and at the remaining 40 acres of the Ignacio Industrial Park. Both Novato and the County have adopted mixed-use development criteria for Hamilton (not including aviation) that could mean as many as 10,000 new jobs in southern Novato. The Firemen's Fund facility would add another 5,000 jobs by 1990. Workers employed in the northern County could commute from southern Sonoma, and take advantage of the lower-cost housing in that area. There is a potential for major industrial expansion near Gness Field, but this possibility is subject to the political and market responses to the Hamilton potential. State policies for wetlands in the area can also be expected to cause severe development constraints.

Open Space. Since 1973 some 5,000 acres, or 18 percent of the planning area, has been purchased for open space. These purchases include Mount Burdell, Big Rock Ridge, Deer Island and Days Island. Public access to these areas needs to be developed, and these resources integrated with a trails network. Floodplain acquisition and zoning has had the effect of preserving lowlands here as well.

Services. Water is provided by the North Marin County Water District and is adequate for anticipated growth. The major reservoir, Stafford Lake, is a popular recreation site and county park. Sanitary service is also expected to be adequate as improvements in the subregional treatment facilities are made during the next few years provided federal funding is obtained. Fire protection services are in question, however, as many areas have response times in excess of five minutes and current revenues are inadequate to improve service.

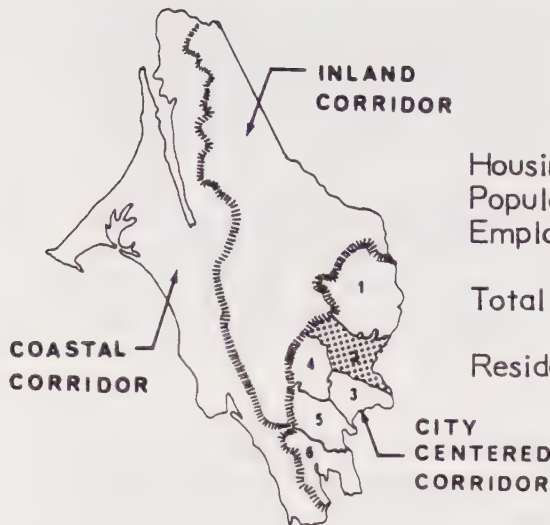
Energy. Novato's energy consumption is due to: 1) the typical length of the commute to San Francisco, which many citizens of Novato drive alone, and 2) the fact that "home to other" internal trips within Novato require auto use. The flat topography of most of the settlement is highly amenable to bikeway development for local trips (as in Davis, California). Summer heat causes considerable energy use in cooling. Building orientation, design, and landscaping for energy conservation are readily implementable here as there is more development potential in this planning area than in other parts of the City-Centered Corridor.

As for retrofit concepts the climate supports solar panel carports which could be constructed over hot asphalt parking lots in commercial centers for on-site energy generation to mitigate the energy costs that such land uses entail.

Recommendations.

1. Energy conservation goals should be furthered in every aspect of community development.
2. Fiscal efficiency in the development of new services through functional (contracts) or organizational consolidation and especially in the consolidation of existing services should be promoted, if economy and service levels would be improved.
3. The desirability of developing the Gness Field area for industry should be studied with respect to Hamilton as a commercial/industrial (mixed use) site. Land in this area should be annexed to the city before urban development is allowed.
4. Downtown Novato should be preserved and enhanced as the symbolic core of the city and as a specialty retail, office, financial and government center.
5. First priority should be given to the Novato Planning Area in the development of urban service areas to manage growth and reduce fiscal impacts.

LAS GALLINAS VALLEY PLANNING AREA SUMMARY OF PROJECTIONS



	1975	1980	1990	2000
Housing	8,890	9,049	10,373	11,698
Population	23,975	24,704	27,582	30,415
Employment	5,426	7,048	9,367	10,829

Total Acres: 13,665

Residential Potential: 2,649
(San Rafael - 1,376; County - 1,273)

Las Gallinas Valley Planning Area

Growth. Growth in the Las Gallinas Valley, unless properly coordinated and managed, will have major impacts on services, roads, and the functioning of the County as a whole. A joint city-county planning effort is needed to manage the complex features of the valley's growth, which includes jobs, commerce, government, and residential development.

Housing. Terra Linda and Marinwood are the valley's largest single-family residential areas and are linked together by Las Gallinas Avenue and Monte Marin Park. A wide variety of densities occurs throughout the rest of the planning area from the large single-family homes of Los Ranchitos to the condominiums on Quail Hill, several large apartment complexes, and the Contempo Marin mobile home park. Examples of mixed housing occur in Santa Venetia and along Nova Albion Way. The future dwellings of this planning area are expected to be mixed but predominantly multifamily, if current master plan proposals for Luiz, Grady, and Smith ranch properties are indicative. Major impacts at the Lucas Valley and Manuel Freitas interchanges are expected.

Commercial Centers. The Northgate Center is currently the major retail outlet for the northern areas of the City-Centered Corridor. The location of the center, relatively near the County Civic Center, Northgate Industrial Park, Kaiser Hospital, and Firemen's Fund provides a large potential daytime clientele. "Leakage" of retail dollars spent outside of Marin, a recent concern, reflects in part poor utilization of that market. Access to the Northgate center and between the two parts of the center is difficult. The 1973 Countywide Plan recommended a daytime shuttle bus to connect these rather distant job and commercial centers. This option still is a good one for partially relieving deteriorating conditions at Northgate access points and developing market potential. The Northgate "circulator" could readily include McInnis Park and residential areas as well.

Employment Centers. The Northgate Industrial Park, the Firemen's Fund, the Civic Center, and other large parcels proposed for development represent major office employment centers. Joint efforts of city and county jurisdictions are needed to ensure housing availability for workers and adequate transportation and to seek the highest-paying jobs to achieve a balance in housing costs with salaries. A balance in job type would forestall the need for out-commuting as well.

Unlike the Novato Planning Area, where developable land is under one ownership (e.g., Hamilton or St. Vincent's), which means that internal support systems can help to mitigate impacts, the valley has complex ownerships, established neighborhoods, and multiple problems that include outdated access conditions, bays, floodplain, and ridgetop land forms.

Open Space. Since 1972 Open Space District acquisitions have included community separators between San Rafael and Sleepy Hollow. Along the ridge of the San Pedro peninsula and on the northern side of Lucas Valley, county service areas, special taxing districts, and assessments of adjacent properties have been used to accomplish open space goals. Such efforts supplied almost half the purchase monies spent in the valley.

McInnis Park is a new recreational center for both Las Gallinas and the mid-county area. Development of China Camp as an overnight regional camp site should be carefully monitored as the valley develops. Every effort should be made to complete open space acquisitions in the western portions of Lucas Valley. Bayfront conservation zone and open space policies will have definite impacts in several remaining parcels of the valley.

Services. Sewer service is provided by the Las Gallinas Sanitary District. The Eastern Marin-Southern Sonoma Wastewater Management Plan calls for upgrading the Las Gallinas treatment plant. Located near the ridge between the Novato and Las Gallinas planning areas, this facility is critical to the growth of both Novato and Las Gallinas Valley planning areas.

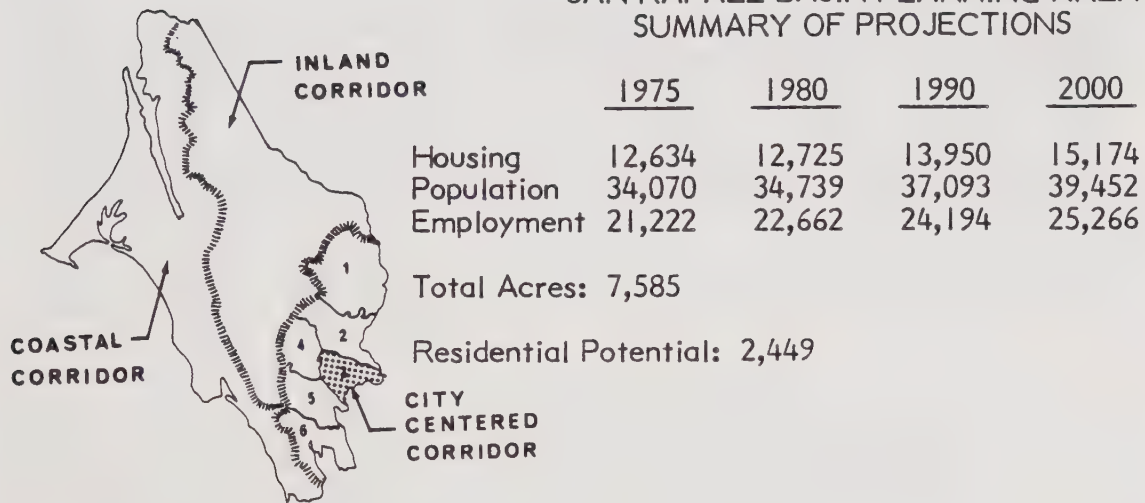
Energy. Many opportunities for creative solar applications to supply, in part, the energy needs of office and commercial buildings are possible here. However, the most conservation can be achieved in: 1) route structuring of major transit lines directed to the growing job centers, and 2) the installation of a Northgate shuttle bus to reduce congestion at access points and to increase the cohesion of the area during business hours while reducing dependency on the auto. The typical suburban housing stock of the Terra Linda and Marinwood areas should be considered for a demonstration of how retrofitting, landscaping, and other energy conservation measures as are favored by the community can be put into operation.

Recommendations.

1. A joint city-county planning and implementation program is needed to address the complex and important issues that growth in the valley will raise for the County.
2. Housing should be encouraged on suitable sites within the valley, and these units should be priced and in sufficient numbers to match new jobs expected in employment centers.
3. A shuttle bus at 10 to 15 minute intervals should connect the valley's job, commercial, and housing areas. This service should be supported by current and future employers and retailers (with small farebox revenues), as opposed to government, as a gesture of goodwill and community participation.
4. The Silveira Ranch-St. Vincent's area has potential for a planned community with a mixture of office, industrial, and residential uses. Efforts should be made to prevent this area from being developed into single-family residential

subdivision, which would violate the plan's objectives for energy conservation and moderate-income housing. Because of its historic and geographic isolation, it may be workable to develop it as a self-sufficient, energy-demonstration community. Development should be oriented in density and design toward a possible transit corridor along the Northwestern Pacific right-of-way. The staffs of the San Rafael, Novato and County planning departments should give a high priority to a cooperative study of this important corridor.

SAN RAFAEL BASIN PLANNING AREA SUMMARY OF PROJECTIONS



San Rafael Basin Planning Area

Growth. The growth of the older part of San Rafael will be characterized largely by infill and redevelopment. A recent study by the San Rafael planning staff revealed that the community's greatest potential for new housing was in the use of vacant, small parcels in developed areas. Large vacant parcels occur mainly on the San Pedro peninsula; but these are steep, have relatively low density zoning, and have frequently been cited for open space acquisition. New growth in San Rafael will involve the redevelopment of the downtown and Francisco Boulevard industrial areas.

Housing. The planning area is highly diverse in housing type and price—from Peacock Gap to Bret Harte to the Canal neighborhoods. The age of housing varies greatly. The city has actively participated in the preservation of low and moderate income housing stock, and is expected to explore innovative techniques in this area in the future. Mixed residential and commercial use projects may provide additional opportunities to enhance the mix of housing in the basin.

Commercial Centers. Downtown San Rafael is viewed as the most important cultural, financial, and service center in the County. The potential of this area is being improved through implementation of the Central San Rafael Redevelopment Plan. The plan includes tree plantings on Fourth Street, design improvements, parking facilities, and many supportive private sector investments. South of downtown, a more difficult redevelopment project is envisioned, which includes relocation of auto retail sales from the eastern side of 101, development of flood control facilities and garden offices, and acquisition and relocation of the Northwestern Pacific Railroad right-of-way to correct circulation problems through extension of Andersen Drive. West of downtown a low-intensity commercial strip, dubbed "Miracle Mile", has been excluded from the redevelopment area; continued use but little expansion is expected here.

Employment Centers. Aside from retail and office employment in the downtown areas, eastern San Rafael provides one of the County's most diverse industrial areas and employment centers. The redevelopment plan calls for considerable improvement to public viewsapes from the highway, along with a conscious integration of improved wastewater facilities to control flooding.

Open Space. Major acquisitions by the Open Space District have taken place along the San Rafael/Sleepy Hollow ridge and the ridge of the San Pedro peninsula. Continued acquisitions in these areas are expected. Community separators south of Bret Harte and along the ridge of the San Quentin peninsula will be critical to the preservation of the city's scenic beauty at buildout.

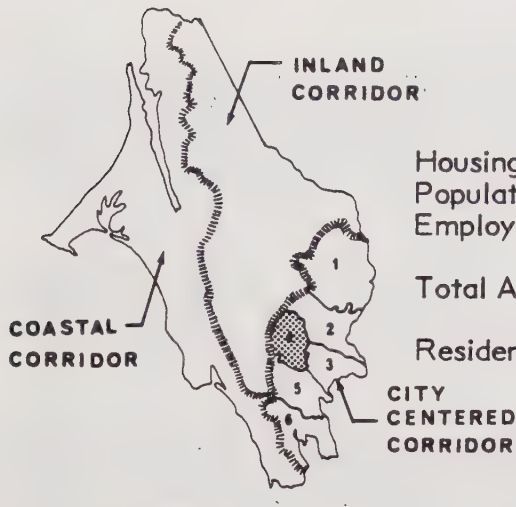
Services. San Rafael is served by the Marin Municipal Water District and the San Rafael Sanitation District. Reconstruction of the sanitary treatment facility will soon be underway. Undergrounding of utility lines is a major component of the redevelopment plan especially along Francisco Boulevard.

Energy. San Rafael's per capita energy consumption is among the lowest in the County due, in part, to the number of multifamily dwellings and the compact commercial land use pattern in the downtown area. The central transfer point of the Golden Gate Transit system in Marin is located in the city center, which makes the system highly accessible to residents, clients, and employees of central San Rafael.

Recommendations.

1. Downtown San Rafael should continue to be developed as the County's major urban center.
2. Infill of residential areas should be encouraged.
3. Fiscal and energy impacts of redevelopment projects should be evaluated.
4. A balance of unit types and price ranges in housing can be maintained through a strong commitment to housing programs for low and moderate income families and continued use of inclusionary policies in new development.

UPPER ROSS VALLEY PLANNING AREA SUMMARY OF PROJECTIONS



	<u>1975</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
Housing	10,410	10,580	11,302	12,002
Population	26,628	26,131	27,352	29,487
Employment	5,361	5,671	6,165	6,699

Total Acres: 9,440

Residential Potential: 1,588

Upper Ross Valley Planning Area

Growth. The Upper Ross Valley is builtout to 87 percent of current zoned capacity. This fact means that only the most difficult sites are left undeveloped and that redevelopment of older sites has begun. The largest potential for growth occurs in Sleepy Hollow and the steep hillsides of San Anselmo and Fairfax. Growth in the adjacent San Geronimo Valley which is in the Inland Rural Corridor, will probably be more noticeable in terms of effect on commercial areas and traffic.

Housing. The quality of the housing stock in parts of the valley is questionable, as many of the original residences were summer homes now converted to year-round use. Both Fairfax and San Anselmo plan documents indicate that the percentage of pre-1940 stock is high and probably not up to current code standards. There are many illegal second units, causing hidden densities in some areas. The San Anselmo plan calls for a density analysis with a goal of setting a ceiling on the number of second units allowed in a neighborhood and the criteria for their use. The Fairfax plan calls for prohibiting discrimination against families with children in rental housing. The high percentage of elderly, both rich and poor, in the planning area means that special services for this group may need special attention here.

Commercial Centers. Fairfax, San Anselmo, and Kentfield downtown areas provide interest to the fabric of the valley and should be preserved. Particular attention should be paid to parking issues, traffic management, and ways to increase walk-in trade. The County Planning Department has completed a study of the Kentfield downtown area at Sir Francis Drake and College Avenue that will include recommendations for strengthening this commercial area and mitigating impacts on adjacent areas. Fairfax and Redhill shopping centers are the valley's major provisioners and could function as transit ties to a greater degree than at present.

Employment Centers. See Commercial Centers.

Open Space. Most areas in the western part of the planning area slated for open space in the 1973 Countywide Plan have been brought under preservation. The Marin Municipal Water District land holdings to the south form an open space boundary along the southern border of the planning area. The County's Deer Park in Fairfax is the site of a school/park/public facilities complex. The San Anselmo plan recommends Bald Hill as an important open space acquisition; this site could be linked by trail to Deer Park and Phoenix Lake and water district lands for recreational use.

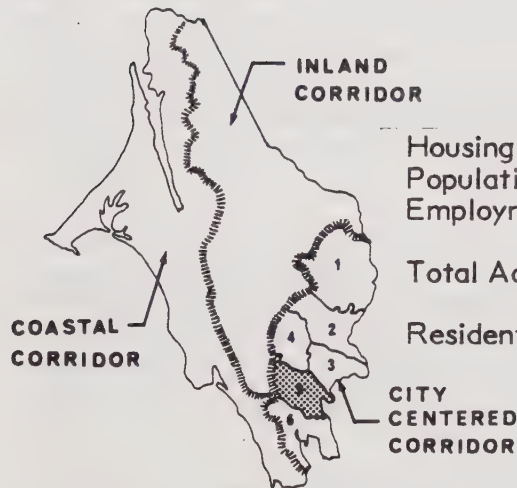
Services. Narrow roads, steep slopes, dry vegetation, and poor water pressure contribute to an extreme fire hazard on the slopes of Fairfax. The light, summer-home, wood construction of many dwellings increases the likelihood of fire hazard. Some units are on private septic systems, which together with unstable slopes and geologic conditions, increase landslide potentials. A major capital improvements program may be needed to protect health and safety in this area. Development should be curtailed where possible on difficult sites.

Energy. The Upper Ross Valley communities are energy-consumers in ways not typical in most of the County. The larger homes of Ross require a greater than average electrical consumption, making Ross the largest per capita electrical energy consumer in the County. Hillside homes in the upper reaches of Sleepy Hollow and Fairfax are energy-consuming in terms of both auto and home energy use. Yet in other ways the high density areas of Fairfax and San Anselmo, located near transit and shopping and away from unstable land forms provide an example of how transit corridors might be workable with minimum densities. Though urban in density, this area has few of the undesirable characteristics of most urban areas. It could serve as an model for energy-efficient siting and design in other parts of the County.

Recommendations.

1. Upper Ross Valley should be used as a model for transit-related development elsewhere in the County.
2. A study should be conducted of the transfer of development potential from steep unstable slopes to valley floor parcels in redevelopment.
3. San Anselmo should be used as a model for studies of second units elsewhere in the planning area and in the County.
4. Voluntary energy audit and rehabilitation assistance should be used together to bring homes up to code and to make them energy conserving at the same time.

LOWER ROSS VALLEY PLANNING AREA SUMMARY OF PROJECTIONS



	<u>1975</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
Housing	11,211	11,712	12,681	13,327
Population	29,337	28,709	29,641	30,212
Employment	6,975	7,423	8,298	8,948

Total Acres: 6,970

Residential Potential: 1,615

Lower Ross Valley Planning Area

Growth. Population in the Lower Ross Valley planning area is estimated to stay roughly the same over the next decade. Housing supply for the same period is expected to increase slightly, suggesting a possible slight decline in average household size for the area. Only an estimated 500 new homes were built between 1975-1980. This 100-unit per year rate is substantially below the 250-300 rate suggested in the 1973 Countywide Plan. Downzoning has contributed substantially to a reduction in the total number of potential homes for this area. Larkspur Landing is in the final phases of development.

Housing. Housing conditions affecting other planning areas of Marin County are also present in Lower Ross Valley. Issues related to affordable housing are particularly relevant for this plan area because its average housing prices rank among the highest in the County and it is near proposed major commercial expansion. New retail shopping facilities will employ many workers at wage levels not likely to permit them to afford housing in Lower Ross Valley or localities near their places of employment.

Commercial Centers. Larkspur Landing is the major new commercial development in Lower Ross Valley. However, Corte Madera is the designated location of a proposed substantial increase in commercial capacity. The proposed Hahn Shopping Center and proposed expansion of the Corte Madera Center will more than triple the amount of commercial square footage accessible from the Tamalpais interchange. The recent change in designated usage of the Bon Air site from exclusively commercial to a combination of commercial and residential may help to reduce the level of commercial-related traffic impacts expected to result in this sector of the U.S. 101 travel corridor.

Employment Centers. The Hahn and Corte Madera shopping center proposals would collectively represent a sizable increase in employment opportunities in Lower Ross Valley. Development of the proposed projects is expected to cause some stimulation of the Marin County construction-related business sector as well as new retail trade employment. A modest increase in office employment is also expected.

Open Space. Since 1977, nearly 500 acres have been purchased for public open space, including the Corte Madera Ecological Reserve (formerly the Heerdt Marsh), and portions of the Northridge. The Golden Gate Bridge District has agreed to restore 125 acres of the former Muzzi Marsh to tidal action. The Triangular Marsh, other marsh areas, and portions of the Tiburon Peninsula Ridge and Northridge are targeted for future acquisition. The Hahn proposal includes the dedication of 32 acres of marshland designated for open space in the Corte Madera General Plan.

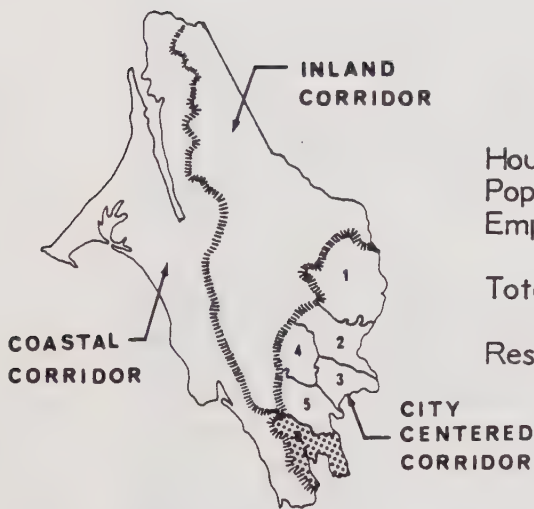
Services. The Lower Ross area is served by the Marin Municipal Water District, which provides water to the eastern portion of the County south of Novato. Sewerage services are provided by the Larkspur Sanitary District and Sanitary Districts Nos. 1 and 2. These agencies and the San Rafael Sanitary District have formed the Central Marin Sanitation Agency to construct a central treatment plant complying with state and federal water quality regulations in East San Rafael. The Larkspur and Corte Madera Police Departments have recently been combined into the Twin Cities Police Department to improve service levels and control rising operating costs. The two cities' Recreation Departments also coordinate their programs, and further consolidations of services, where it would improve service levels and reduce costs, is being explored.

Energy. Potentially high energy consumption at proposed commercial sites may be offset through energy-conserving site design. For instance, parking facilities may serve as shared-use park and ride centers for the San Francisco-Marin commute bus services. Solar applications on buildings and parking lots can serve to reduce on-site commercial and office energy requirements.

Recommendations.

1. Because of previously low rates of housing production, residential growth in the area could be favorably considered when appropriate projects are presented. Density bonuses and other inclusionary incentives should be used to provide low and moderate income housing. Higher densities should be located within walking distance of major transit uses.
2. Interjurisdictional cooperation should be sought to address energy management issues in Lower Ross Valley.
3. New commercial developments affecting Highway 101 should be assessed an equitable fee for highway, transit, and public service improvements.
4. Further consolidation of services where service levels would improve or cost efficiencies would be achieved should be encouraged.

RICHARDSON BAY PLANNING AREA SUMMARY OF PROJECTIONS



	1975	1980	1990	2000
Housing	22,548	23,544	26,183	28,821
Population	52,549	54,915	58,388	63,694
Employment	13,785	14,373	15,500	16,003

Total Acres: 12,965

Residential Potential: 5,277
(Cities: 2,549, County: 2,728)

Richardson Bay Planning Area

Growth. The combination of the growth management program, the moratoria on water and sewer connections, and high housing costs have kept housing development below the permitted 450 units per year. It is estimated that only 1,000 new homes have been constructed between 1975-1980. Site plan reviews have also reduced the number of potential units to the lower level of the permitted density range. The tightening of mortgage money in 1980-81 will prolong the slow rate of housing construction. Mill Valley, Tiburon, Belvedere, and Sausalito established the Richardson Bay-Southern Marin Residential Development Review Board in 1976 to act as a growth management agency for Richardson Bay communities. However, the jurisdiction rescinded the agreement establishing the Review Board in 1981, because of the low growth rate and the approach of buildout.

Housing. A substantial percentage of all active new residential development proposals in the planning area are located in Mill Valley. Proposed densities for a majority of new units are high and continue to support area trends toward expensive, small residential units. Nearly one-quarter of the residential projects proposed for Richardson Bay are targeted for hillside development. Such development tends to perpetuate high energy demands and services may be more difficult to provide. Some progress has been made toward expanding low and moderate income housing in Mill Valley. However, high housing costs continue to be a major impediment. County portions of the planning area are slated for 35 percent of total residential units currently proposed. Marin City's community plan calls for reducing density on adjacent ridgelands.

Commercial Centers. Richardson Bay is experiencing a moderate increase in commercial development relative to other County plan areas. Nearly all of the new commercial square footage is being proposed outside of incorporated boundaries. Marin City's plan proposes a mixture of new retail uses and a hotel in addition to residential uses. Some scattered commercial development will occur in Sausalito.

Employment Centers. Sausalito leads all Richardson Bay cities in proposed new office space development, followed by Mill Valley and Tiburon. Expansion of the

city's office sector could provide an attractive alternative for businesses requiring rapid access to San Francisco's business center but desiring to locate in Marin County. Two major parcels in Marin City collectively constitute one of the major developable areas in southern Marin County. The Marin City plan calls for a variety of regionally oriented commercial uses on the sites, including new office space development, to expand the community's job and tax base.

Open Space. Approximately 1,500 of Richardson Bay's 12,965 total acres (11.6 percent) have been purchased for open space since 1973. On Ring Mountain, 365 acres are proposed for open space. Additional Ring Mountain acreage and portions of Northridge located in the planning area have been targeted for additional open space acquisition. However, recently imposed constraints on public spending may slow the rate of open space acquisition.

Services. Water is provided by the Marin Municipal Water District, which serves the central and southern portions of the County. The present water supply comes from runoff into reservoirs on the Lagunitas watershed, the Nicasio and Soulajule reservoirs, and from the Russian River intertie. The Sewerage Agency of Southern Marin serves the sewage treatment needs of the Richardson Bay Planning Area. To comply with federal water quality regulations, plans are being developed for upgrading various treatment plants, combining the effluent from several of them for release at Raccoon Strait off of Tiburon, and improving the discharge system that transports effluent off of Yellow Bluff. In light of rising operating costs, declining revenues, and recently imposed fiscal constraints, many Marin County special districts have begun to explore alternatives for consolidating services.

Energy. Historically, Richardson Bay communities tend to rank in the upper ranges of development densities in Marin County. These density levels have supported a relatively high level of bus commute service for the area. Such service has enabled the area to minimize energy consumption for commuting relative to other areas of the County. On the other hand, Richardson Bay residents on the average tend to use slightly more energy than other Marin County communities. New higher density developments proposed for the area will minimize energy service expansion. However, increased low density hillside development, with its difficult service characteristics may support current trends in high residential energy usage.

Recommendations.

1. Density bonuses and other incentives should be used to increase the potential for low and moderate income housing.
2. Consolidated service areas should be defined and programs established to combine the delivery of governmental services wherever possible.
3. Hillside areas, as opposed to ridgeland and valley floors, should be evaluated for the cost of servicing the needs of new development; case studies in this planning area could provide needed information on the optimum densities these areas should receive.
4. Major development in Marin City should be matched with redesign and improvement of the Sausalito-Marín City interchange. New projects should be assessed an equitable fee for their share of the necessary improvements.

B. INLAND RURAL CORRIDOR

Farms, ranches, publicly owned land, and scattered villages characterize this corridor. The total amount of housing is small, but it includes a proportion of low and moderate income units that is considerably higher than the countywide average. Many of these units are also in poor physical condition.

The area has not yet been directly affected by the pressures that have caused rapid growth in the City-Centered Corridor. However, Nicasio and the San Geronimo Valley could feel this impact soon, since they are the most accessible parts of the corridor.

Economic activities in the corridor consist mostly of agriculture and a few tourist enterprises such as the San Geronimo Golf Course.

Issues

Major countywide issues confronting the corridor are:

- o Preventing rapid growth and urbanization that would destroy the present rural character of the area.
- o Improving the quality of existing residential areas, without substantially increasing costs to low and moderate-income residents.
- o Supporting continued agriculture.

Recommendations

Specific policies for villages in the Inland Rural Corridor are contained in the San Geronimo Valley Community Plan adopted by the Board of Supervisors in 1977, and the Nicasio Community Plan, adopted in 1979.

C. COASTAL RECREATION CORRIDOR

Much of the Coastal Recreation Corridor is already publicly owned in the Point Reyes National Seashore and the Golden Gate National Recreation Area. However, there will continue to be privately owned agricultural, village, and tourist areas.

Like the Inland Rural Corridor, this area is characterized by a small, predominantly rural population and a large share of low and moderate income and relatively poor quality housing units.

Issues

Major issues in the corridor are:

- o Preventing rapid or disruptive growth.
- o Improving housing quality without substantially increasing costs to present low and moderate income residents.
- o Providing for properly designed and located tourist facilities, related to major recreational attractions.
- o Supporting continued agriculture.

Recommendations

Specific policies for villages, agricultural, and visitor serving areas of this corridor are set forth in the Local Coastal Program and in the following community plans adopted by the Board of Supervisors: Bolinas, 1975; Stinson Beach, 1976; Point Reyes Station, 1976; Tomales, 1977; Muir Beach, 1978; and Inverness Ridge Communities, 1979.

II. URBAN SERVICE AREAS

A. PURPOSE

The 1973 Countywide Plan did not contain policies on where future urban development should locate; nor did it provide guidelines for resolving differences in land use policies or standards where both the County and the affected city have different ideas. As a result, developers will seek to develop where development standards and costs are lower. At the same time, development in the unincorporated areas often creates a demand for municipal services — services that adjacent cities may be strained to provide. The ineffective coordination of development between the County and cities, particularly in unincorporated areas adjacent to cities, has been a source of friction between jurisdictions.

Development decisions naturally affect the provision of services and who pays for those services. The passage of Proposition 13 in 1978 ushered in a new era for planning, an era characterized by fiscal constraints and a concern for cost efficiency. Proposition 13 significantly reduced the revenues collected from property taxes, and as a result, made it extremely difficult for local jurisdictions to issue government bonds to finance capital facilities such as roads, street lights, fire stations, etc.

Accordingly, the County and the Marin Local Agency Formation Commission (LAFCo) are proposing to identify areas where future development can occur most efficiently in terms of service provision and to formulate policies that will facilitate the following objectives:

- o to improve coordination of decisions on land use management and development in urban fringe areas by the County and cities,
- o to conform with LAFCo policies on encouraging urban development to occur in cities and discouraging sprawl,
- o to maximize the use of existing, available services before providing new or expanded services, and
- o to manage growth in a manner consistent with the ability of cities and districts to provide services.

B. FISCAL CONSEQUENCES OF THE AMOUNT AND LOCATION OF DEVELOPMENT

Ability to Finance Public Services

Proposition 13, and Assembly Bill 8 which permanently implements it, made major changes in the source and magnitude of local government financing. Proposition 4 imposed limits on how much money state and local government agencies can spend. These changes have placed local government officials in a difficult situation. Revenues from the property tax have been cut sharply, and the ability of local governments to collect and spend funds from some other sources is uncertain. At the same time, taxpayers expect government officials to continue providing the same level of basic government services. As a result there is an increasing desire that planning decisions be guided by a concern that new development generate the most favorable cost/revenue balance possible.

In the future the role of the state in subsidizing local government and school-district operations is likely to decline. Built into Assembly Bill 8 is a deflator mechanism that will probably reduce state aid once the state's surplus (built up in pre-Proposition 13 years) is depleted, expected to occur in 1981. Under the deflator provisions, if state revenues are insufficient to support state expenditures (which are permitted to grow in step with price level and population growth), the state will deduct the needed funds from tax revenues normally rebated to local government. Half of the deductions will be made from such sources as business inventory exemption reimbursements, motor vehicle in-lieu fees, cigarette tax and homeowner's exemption reimbursements, and the other half from school support funds. Given present trends, these reductions in state assistance will probably first have a major impact in the 1981-82 fiscal year.

Cost Considerations

New development similar to present development can generally pay its way in terms of operating costs. This is because new development will be assessed at market value, while most existing stock will be assessed below market value because assessed value under Proposition 13 can only increase 2 percent per year, well below the rate of real estate price escalation. So, in general, new development will contribute more in property taxes than existing development. Thus, new development will tend to raise the average revenue generated per service unit and enable the level of services to increase above what would be possible with

revenues only from existing development. This higher level, however, may be below the level of services provided prior to Proposition 13.

When the capital costs of providing the infrastructure needed for new development—roads, sewers, water supply, schools, etc.—are considered, even development with a high market value might not be judged to pay its own way. Capital improvements, prior to Proposition 13, were paid for by local government—i.e., by all taxpayers, usually through the use of general obligation bonds. The use of these bonds now appears to be infeasible due to the imposed inability of government to pledge the use of a property tax sufficient to debt service. And capital improvements are too expensive to be financed out of operating revenues received as a share of the \$4.00 general property tax rate. Consistent with the belief (and growing political consensus) that new development should pay its own way, many communities are now taking the position that development may pay directly the costs of capital infrastructure needed to service it.

On the cost side, new development could reduce per unit service costs where:

- o expanded service output would provide the ability to take advantage of economies of scale in service delivery, or
- o efficiencies would result from infill development in areas having excess capacity.

New development could increase per unit service costs where:

- o required new capital facilities would have higher than average costs, or
- o expanded service output would result in diseconomies of scale in service delivery.

Revenue Considerations

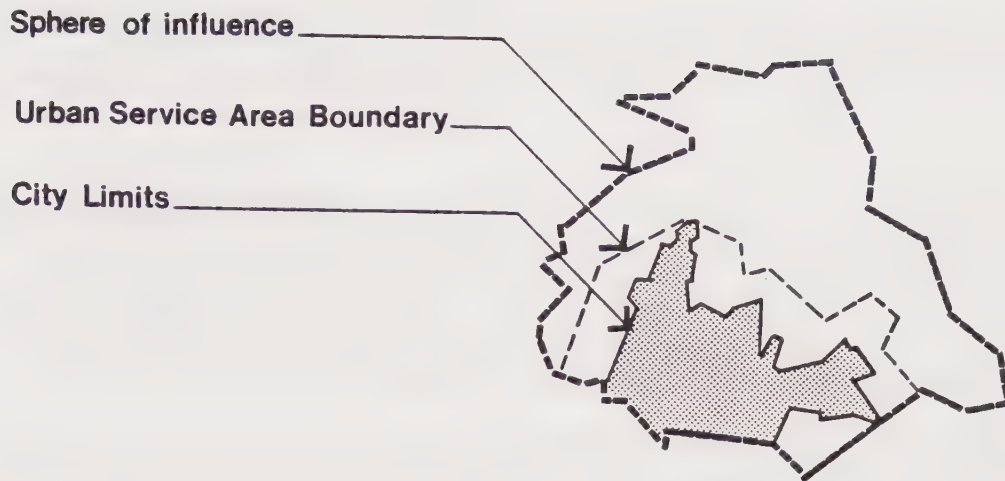
The revenue changes imposed by Proposition 13 require policy decisions regarding how capital and operating costs will be paid and what level of service will be provided. In this respect, a plan that maximizes revenues relative to costs is the goal. Revenues, however, are only of use if they can be spent. Under the spending limitations of Proposition 4, it is now possible to generate new revenues that cannot be used. Many, if not most, jurisdictions throughout the state, however, are more likely to find their revenues falling far short of allowable spending rather than exceeding it. Because of the complexity of factors affecting the likelihood that an agency would reach its Proposition 4 limit, it will be difficult to draw conclusions for specific jurisdictions. However, comments can be made about how that likelihood varies among different types of service agencies.

The likelihood that an agency will collect revenues in excess of its Proposition 4 limit depends significantly upon its sources of revenue. The impact of new development on an agency's revenues will be much smaller for a larger agency with diversified revenue sources than for a small agency heavily reliant on the property tax. Building a new shopping center, for example, will generate new property and sales tax revenues for a county. But because such taxes account for a relatively small share of total revenues and the new taxes generated will be

small in comparison to the total taxes collected by the county, development of the shopping center is not likely to force imposition of the Proposition 4 spending limit.

On the other hand, the revenues accruing to the fire district serving the same shopping center might increase substantially in percentage terms. If the fire district is small, the shopping center might substantially boost assessed value in the district. Because most of its revenues come from the property taxes, the district's total revenues would grow substantially as a result. Since the shopping center brought no new population into the district, its spending limit would remain unchanged. In this case the district's revenues might exceed its spending limit.

While non-enterprise special districts seem the most likely agencies to be affected by the Proposition 4 spending limit because they are small and rely heavily on the property tax, a provision in Assembly Bill 8 reduces the likelihood substantially. Assembly Bill 8 created a Special District Augmentation Fund to which each special district must annually contribute a share of its property tax revenues equivalent to the share that state bailout funds represented of its total revenue from bailout funds and property taxes in 1978-79. Money in the fund is then redistributed to special districts by the County Board of Supervisors, though redistribution is not necessarily in proportion to the contributions. Thus, if a special district increased its revenues substantially from one year to the next, the Board of Supervisors is likely to reduce its allocation of augmentation funds to that district to insure that the agency's revenues do not exceed its spending limit. In other words, the Board of Supervisors are not likely to allocate money to special districts that cannot legally spend it.



C. URBAN SERVICE AREA CONCEPT

In accordance with the Knox-Nisbet Act of 1972, LAFCo was charged with establishing spheres of influence (SOI) for each city. The SOI is to be a plan for the probable ultimate physical boundaries and service area of a local government agency. An urban service area delineates where, within the SOI, urban development patterns can best be accommodated over the next ten years given the fiscal concerns identified in the previous section. The geographical boundaries of the urban service area are a function of several factors, the most important of which include:

- o the development potential and growth rate of the area,
- o the availability of vacant land to accommodate growth,
- o the availability and ability of existing services to accommodate growth, and
- o the discouragement of urban sprawl.

Many public services influence the pattern and phasing of community development. Water supply, sewerage, roads, drainage systems, schools — all contribute to the liveability and growth of a community. LAFCo has identified four services in particular whose availability and level of service mark a significant change from rural to urban for a community. Those four services, which are also used here to define urban service areas are police, fire, water, and sewerage.

The urban service area should be viewed as an area whose development will affect the provision of city services, as an area that represents a logical, orderly expansion of urban development patterns, and as an area wherein development proposals must be reviewed by both cities and County in close coordination with one another. As these areas also represent the most likely candidates for future annexations, it would be most desirable for property owners to seek approval to develop from the city. The urban service area is not intended to be a fixed area. As growth occurs and conditions change, the urban service area should be revised.

III. POLICIES

A. COUNTYWIDE FRAMEWORK

Policies

- A-1 Through pursuit of interdependent policies the cities of Marin and the County of Marin seek to jointly plan for orderly development areas within the City-Centered Corridor, which currently require or will require urban services in the foreseeable future. Urban services include police and fire protection, water service, and sanitation services. Whenever possible, urban services should be provided by cities rather than special districts.
- A-2 The cities will act as primary providers of urban services and the County will act as primary protector of lands located in the Coastal Recreation and Inland Rural Corridors. As primary provider of urban services, the cities shall proceed with annexations of lands within urban service areas and shall furnish these levels of services to annexed areas. The County shall encourage city annexation and shall offer cities the first right of review for providing public services.
- A-3 As primary protector of rural areas, the County shall discourage urban scale development outside of city urban service areas. This policy should be included in the cities' and County's land use, housing, and urban service area elements of applicable general plans.
- A-4 The urban service area policies shall not apply to development applications already on file at time of adoption of these plan amendments, or to projects which have already had planning approvals but require further planning actions. It is the intent of these revisions to exempt properties already in approved community plans.

Rationale and Implementation

The primary reason for assuming these different roles arises from basic differences in the nature and function of city and County government, and from the fact that planned urban development decreases the cost for providing urban services while simultaneously improving the environment for urban development. Other reasons include 1) a State planning policy that disfavors encirclement of incorporated cities with urban development which lacks adequate and comprehensive urban services and 2) the reduction of available revenue for urban development at both city and County levels of government resulting from the fiscal constraints of Proposition 13.

Since this policy essentially requires a city/County partnership in order to effectively encourage development to locate in cities, it is understood that neither the cities nor the County shall change its policy without first consulting the other party. It is further understood, however, that the policy will require adoption of implementation measures to translate its generally stated aims into specific action.

One approach might be that subdivision and master development plans involving unincorporated land within a city urban service area shall be submitted to the city for planning action and annexation. This approach awards the "right of first review" to the affected city to perform the planning analysis of any development plan requiring urban services. City annexation will accompany approval of the development plan. Should the affected city disapprove the development plan, such

disapproval shall not preclude subdivision within the County's jurisdiction. Subdivision of unincorporated land would be allowed at rural level zoning or by an adopted community plan zoning, provided it is already within a district that is able to provide water, sanitation, fire and police services.

B. URBAN SERVICE AREAS

Definition Policies

- B-1.1 Urban service areas should include all incorporated lands of the city.
- B-1.2 Already developed unincorporated lands that benefit, or have the potential of benefiting once annexed, from city services should be included in the City's urban service area.
- B-1.3 Vacant unincorporated lands that are contiguous to a city should be included in the urban service area, if the city is willing and capable of providing services to the area.
- B-1.4 Vacant unincorporated lands that are not contiguous to a city but may benefit from city services should be considered for inclusion in the urban service area of the city most capable of serving the area. Such consideration should take into account whether the area's development is premature and whether lands more proximate to already existing developed areas should be developed first.
- B-1.5 Areas that are not suitable for development because of natural hazards or resource values should not be included in an urban service area, unless they lie within a city's limit. For example, the following areas are inappropriate for inclusion in an urban service area:
 - o flood hazards
 - o seismic hazards
 - o geologic hazards
 - o bay muds
 - o lands in agricultural use
 - o ridgelands

Rationale

Islands of unincorporated territory are dispersed through nearly all of Marin's eleven cities. These islands and the configuration of many cities create serious problems to efficient public service provision. The need for a comprehensive growth management system to address the rate and location of growth has become increasingly important given the fiscal situation facing local governments. The Countywide Plan Advisory Committee has adopted a philosophy that urban development belongs in the cities. To address these concerns, urban service areas are defined to show where urban development can best be accommodated given present service capabilities and to include existing developed areas. Unincorporated pockets generally receive lower service levels because the County and special district service vehicles must travel through cities to provide Sheriff, fire, and other services. Many of these areas can be more efficiently served by the city.

The designation of an area as being within the urban service area implies that the area can receive police, fire, water, and sewerage services, and is appropriate for intensive development. Accordingly, areas with hazard constraints or resource value are excluded to the extent possible.

Administrative Policies

- B-2.1 County zoning of unincorporated lands in urban service areas should permit less intensive development than would be permitted by the city unless otherwise mutually agreed upon or specified in an adopted Community Plan. The densities and uses should allow for future development consistent with city land use and development policies. County zoning should be revised to discourage development requiring urban levels of service outside of the urban service area, except where an area is already fully developed in which case the existing zoning would apply.
- B-2.2 All development applications within the urban service area should be reviewed by the city.
- B-2.3 All developed unincorporated lands inside a city's urban service area should annex to the city. Undeveloped lands outside the urban service area should not be considered for annexation.
- B-2.4 Prior to development of vacant unincorporated lands within an urban service area, the unincorporated territory should seek annexation to the city. Planning for the development of vacant, unincorporated lands upon annexation should conform with the city's general plan standards and regulations, as well as policies relating to countywide interest.
- B-2.5 When an application for annexation of a parcel of land contiguous to a city has been unsuccessful, the County will process development applications to ensure that to the extent possible:
 - o the proposed use is compatible with the city's general plan,
 - o the proposed project is compatible with the city's development/design standards, and
 - o the services are available; however, a service district moratorium cannot be used as a basis for the County's denial of a planning application.
- B-2.6 The urban service area should be reviewed every five years and revised to reflect changes in land demand and the availability of urban services.

Rationale and Implementation

A problem associated with County-approved development is that the type and standard of development is different from that of the surrounding city. It is thus possible for County development to affect city services adversely. For example, unincorporated residents may travel on city roads or enjoy city parks that cannot accommodate the additional demand without improvements. Or, the costs of improvements (to drainage systems, roads, street lighting, etc.) to satisfy city standards can be a disincentive to annexation. While these situations cannot be

rectified in developed unincorporated areas, they can and should be avoided in undeveloped unincorporated areas.

Ultimately, it is desired that all unincorporated lands within cities' urban service areas would annex to the cities. In order to accomplish this, cities must demonstrate their intentions to annex unincorporated areas by rezoning and submission of a plan for providing these services. At the same time, the County must demonstrate its intentions to leave urban development to the cities and to concentrate on protection of the County's rural areas.

In unincorporated areas within the urban service areas, the County should encourage developers to consult with the respective city and revise its development standards to reflect the city's objectives. These steps would reduce conflicts between city and County land use decision-making and allow cities to manage growth that will affect its provision of services.

Provision of Services and Fiscal Policies

- B-3.1 Cities should not be expected to serve incorporated areas directly or indirectly unless fully compensated.
- B-3.2 Residents, in unincorporated areas, should pay the full cost of service provided to them.
- B-3.3 Extension of special assessment districts should be considered only after it is determined that the increase in service would not exceed identified need and planned levels of growth.
- B-3.4 Special districts should not be created unless it has been demonstrated that services cannot be better provided through annexation to a city, the County, or existing special district.
- B-3.5 The extent and level of services provided by special districts should be consistent with the policies of the cities, County, and LAFCo.

Rationale

In the past, there was no strong policy statement that urban development should occur in the city. Consequently, developers had a choice of whether to build in the County or city. If in the County, a special district providing fire protection or sanitary services could be created to serve the residents. For other services, however, County service vehicles often have to travel long distances. Under City-County mutual aid agreements, city agencies are frequently called upon to answer service calls from unincorporated residents. As a result, problems have arisen. First, the absence of a policy indicating where development should occur has created many examples where public services are inefficiently provided. Few agencies can afford such inefficiencies given the present fiscal constraints. Second, from an equity standpoint, it is inappropriate to subsidize services to unincorporated areas using city revenues.

Accordingly, it is important that these costs be recognized and that cities be compensated for services they provide outside their jurisdictions. Such compensation is available upon annexation of the unincorporated territory, pursuant to the County's tax revenue redistribution formulas adopted by the Board of Supervisors. Furthermore, in affirmation of existing LAFCo policies, the Countywide Plan recommends that extension of special assessment districts or creation of special districts only be considered after it has been determined that service demands are consistent with planned growth and the services cannot be provided by annexation to a city, the County, or existing special district.

C. VILLAGE DEVELOPMENT

Following are general recommendations for delineating developable areas for the unincorporated villages in the Inland Rural and Coastal Reservation corridors. More specific policies are contained in the adopted community plans.

Policies

- C-1 Boundaries must be set and clarified for each village. Three kinds of boundaries affect villages:
- o Boundaries of existing developed areas. In some cases, infilling within these areas is the only expansion recommended.
 - o Boundaries within which villages should be allowed to expand in the future. Criteria in setting these boundaries are described below.
 - o Boundaries of each village's "area of interest", outside the area of expansion but close enough that any development or use has significant impacts on village. These boundaries will be set during the preparation of village plans.

Rationale and Implementation

Each village has its own unique character, but all share the qualities of being small, separate, and relatively self-contained. The quality of self-containedness is evident in the first type of boundary around existing developed areas. It is expressed physically (most villages have a radius of less than a mile so that it is possible to walk from one end to the other); socially (almost all village residents know each other); and economically (a higher proportion of residents work at home or nearby than in communities in the City-Centered Corridor. This is shown by 1970 census data: Only about 23 percent of the workers in rural Marin census tracts commute out of the County, compared with 48 percent countywide.)

In setting expansion area boundaries, the following criteria were used, with variations in each village according to local conditions as shown on Table 5.1. Only rural or low density development should be permitted outside these boundaries throughout the Inland Rural and Coastal Recreation Corridors, except for areas to be designated for tourism.

TABLE 5.1

CRITERIA USED IN SETTING VILLAGE EXPANSION AREA BOUNDARIES

	Public Open Space A	Planning Studies B	Agric. Zoning C	Utility Service Areas D	Water- sheds E	Natural Barriers F	Man-Made Barriers G	Land Needed H	Sub- divisions I	Flood Plains, Seismic J
Dillion Beach			X	X		X		X	X	X
Tomales			X				X	X		X
Marshall			X			X				X
Inverness	X	X			X	X		X	X	X
Inverness Park	X	X			X	X		X	X	X
Pt. Reyes Stn.		X	X	X		X	X	X	X	X
Olema	X									X
Bolinas		X	X	X		X		X	X	X
Stinson Beach	X								X	X
Muir Beach	X									
Nicasio		X	X		X	X		X	X	
Lagunitas	X			X	X	X		X	X	X
Forest Knolls	X			X	X	X		X	X	X
San Geronimo				X	X	X		X	X	X
Woodacre				X	X	X		X	X	X

- o Boundaries of existing and proposed public open space (Golden Gate National Recreation Area, Point Reyes National Seashore).
 - o Boundaries used in studies by the Planning Department and local planning groups.
 - o Areas under agricultural zoning.
 - o Service area boundaries of utility districts.
 - o Watershed boundaries.
 - o Natural barriers: terrain, water, cliffs, open space separating developed areas.
 - o Man-made barriers: roads, dikes.
 - o Adequate land to accommodate 1990 population recommended in Countywide Plan and to allow flexibility and choice.
 - o Existing subdivisions.
 - o Floodplains and areas subject to seismic hazard.
- C-2 Large-scale development that would rapidly or drastically change the character of the village or require expensive new urban services should be discouraged, but social and economic diversity should be encouraged. The expansion of public utilities should be coordinated with Plan policies.

Rationale and Implementation

The adopted community plans for the villages propose densities and land uses to retain an appropriate rural character, and the County has rezoned land as necessary for consistency with these policies. The local Coastal Program makes additional recommendations for relating development in the Coastal Recreation Corridor to limited water and sewage disposal capacities. Accordingly, it will be necessary for the County and service districts to make appropriate changes in their regulations.

- C-3 Diversity in lot size and architecture should be encouraged.

Rationale and Implementation

A number of West Marin residents have advocated varied lot sizes, rather than uniformity, within village areas. This is desirable from the standpoint of individual diversity and aesthetic but it raises the question of equity: Owners of large parcels would be taxed unfairly if they should not choose to subdivide. Open space contracts (enforceable restrictions) or transfer or public purchase of development rights of large parcels could be used to solve this problem. Concurrently, revised zoning techniques could set lots at their existing size, or allow flexibility, rather than blanketing a large area with uniform requirements.

Architectural styles in most villages have generally been diverse and innovative. Continued diversity in the future would be better served by avoiding aesthetic controls, rather than imposing design review restrictions on single-family homes, which could stifle creativity.

- C-4 Some types of agriculture and livestock are to be permitted in some of the villages.

Rationale and Implementation

The raising of crops is now a permitted use in all zoning districts. The keeping of livestock is more restricted, usually requiring a use permit or variance. The Planning Department's policy is generally to grant requests for keeping small numbers of livestock (horses, cattle, poultry) in residential districts, unless there are complaints from neighbors or there is a serious nuisance problem. In all cases, there must be adequate provision for sanitary disposal of wastes.

Small-scale agricultural activity is thus usually possible in residential areas under existing zoning, for landowners who wish to pursue it. To encourage more village residents to do so, agricultural or open space contracts might be used. Rezoning to encourage agriculture or the keeping of farm animals should be adopted where needed to carry out the intent of village plans.

- C-5 Historic structures should be preserved, and the long-established character of village centers should be enhanced. The overall physical character of present villages should be protected from damage or rapid change. Of particular importance are historic buildings or areas that meet one or more of the following criteria:

- o age,
- o a fine example of a particular style,
- o a work of a notable architect or builder,
- o the site of an historic event,
- o a building associated with a famous person,
- o industries or activities that are part of the history of the area.

Rationale and Implementation

Historic features in village areas have been identified in community plans. A procedure for assuring historic preservation in the development process to be established in the Coastal Zone could be extended to the Inland Rural Corridor as well.

All major natural features, such as rock outcrops and bodies of water, will be preserved through the environmental impact review process.

- C-6 No large tourist facilities should be allowed in the villages, but some small tourist-oriented businesses may be permitted. Within villages and expansion areas, small-scale needs to serve visitors to major public recreation areas and tourist developments such as campgrounds, hotels, shops and restaurants should be permitted, if they are consistent with local plans.

Tourist facilities should be of such design, location and scale that they do not adversely affect the natural setting and features which attract visitors in the first place; trailer parks should be carefully designed and well-landscaped. Facilities which encourage auto use and require large parking areas, such as drive-in restaurants, should not be permitted. Uses that can be served by public transit, such as hotels, should be favored over uses requiring auto access, such as motels.

Rationale and Implementation

The timing of commercial development should be controlled in the same manner as residential development, to prevent rapid or drastic change in the character of the village. A strip form of development, either contiguous or widely spotted along a road, should not be permitted.

Recommendations for tourist areas to be designated outside villages but within a village's "area of interest" will also be prepared as part of the plan for that village.

IV. IMPLEMENTATION

A. CITY-CENTERED CORRIDOR

Adopt Urban Service Area Policies and Boundaries

The County's policy is to encourage future urban development to occur in the cities. Nearly half of the remaining growth potential in the spheres of influence reviewed in this study will occur in the existing unincorporated areas. The urban service areas delineated in Figures 5.1 through 5.11 provide a vehicle for both the County and cities to say where development should occur. Outside of these areas, urban development is inappropriate, and the County should consider rezoning accordingly where it has not already done so. Thus, as a first step, the County and cities should adopt the urban service area policies and maps.

Annexation and Prezoning

Annexation of unincorporated territory within the urban service areas will insure development occurs within the city at the appropriate density and consistent with the city's development and design standards. Cities should adopt resolutions establishing programs for annexations of unincorporated lands located within the affected city's urban service area. Cities should amend their general plans and implementing ordinances to insure that their development policies within the unincorporated portions of their urban service areas are known. Section 65859 of the State Government Code allows cities to prezone unincorporated territory adjoining the cities for the purpose of determining the zoning that will apply to such property in the event of subsequent annexation to the city. Cities will prezone all land located within their designated urban service area.

Consolidation

There are a substantial number of special districts in Marin providing similar functions. In light of the continuing need for improved government efficiency, efforts at consolidating services should be supported, if justified by economics and improved service levels.

Adoption of City General Plan

Within a sphere of influence, the County will conduct analysis and hold public hearings for the purpose of adopting all adopted city general plans, neighborhood plans, and recognize rezoning that affects unincorporated land. The city should participate in any study of unincorporated areas and consider such studies when rezoning these areas.

Further LAFCo Analysis

The County should encourage and support further evaluation of LAFCo-designated spheres of influence. While the underlying intent of the Countywide Plan Update Program was to identify urban service areas using service capability as a key criterion, such an effort could not be undertaken without examining the existing spheres of influence. While, as a result of this effort, it is appropriate to recommend revisions to the spheres of influence on the basis of available public services, Section 54774 of the Government Code requires LAFCo to consider many more factors before establishing a sphere of influence. There are other factors which may render a revision based solely on services inappropriate. In short, the analysis performed for this study indicates that the spheres of influence warrant a reexamination. This study should be considered as a first step in a much more thorough assessment of spheres of influence to be performed by LAFCo.

The following pages contain summary descriptions of each of the City-Centered Corridor spheres of influence, recommendations for urban service areas for each of Marin's eleven municipalities, and suggested implementation actions.

Sausalito

The Sausalito sphere of influence includes Sausalito and extends northward from the city limits to include the houseboat area and heliport east of Highway 101 and Marin City on the west (see Figure 5.1). With the exception of Marin City, the sphere of influence is essentially built out. Minor development will occur in the city, primarily as infill and as multifamily construction, and it is expected buildout will occur around 1990. Large scale residential and commercial development is proposed in Marin City, outside of the city's jurisdiction. Future development in this area accounts for roughly 70 percent of the population growth projected for this sphere of influence. The Sausalito City Council met on May 19, 1981 and June 16, 1981 and proposed minor revisions to the present sphere of influence at its northern end along Coyote Canal. These revisions will be further evaluated by LAFCo at the request of Sausalito.

Urban Service Area

Because future development in the unincorporated area will affect Sausalito's provision of services and because of the objective of encouraging urban development to occur within cities, it is recommended that the urban service area for Sausalito be coterminous with the city's existing sphere of influence, as generally outlined in Figure 5.1. Subsequent revisions may result from city's proposals to make slight adjustments to these boundaries.

Implementation






County actions: Complete rezoning study of the Marin City Redevelopment Plan and invite review and comment from Sausalito; continue to implement development plans in coordination with cities; seek involvement of Sausalito in the planning of any large-scale development projects, in accordance with the policies herein.

Suggested City actions: Amend general plan to include areas that lie within its urban service area; indicate interest, ability, and willingness to annex unincorporated areas within the urban service area.

Suggested LAFCo actions: Provide assistance to groups/agencies considering annexation; consider proposed revisions to the existing sphere of influence as recommended by the Sausalito City Council.

Figure 5.1

SAUSALITO

-  Sphere of Influence
-  Urban Service Area
-  Unincorporated Area
-  Area to be Discussed Further
-  Sphere of Interest (inset)

SEDWAY/COOKE



The sphere of influence boundaries are approximate. Larger maps are available for review at the County Planning Department and at Marin LAFCo.

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Tiburon

The Tiburon sphere of influence extends eastward from Highway 101 and includes the Strawberry area, portions of Ring Mountain and all of the Tiburon Peninsula except for Belvedere. The area is approximately half incorporated and half unincorporated (see Figure 5.2). The population is currently likewise split half and half between Tiburon and the unincorporated areas, but the major growth areas in the future are the large vacant parcels in the Strawberry community. The community plan for Strawberry, south of Tiburon Boulevard, is being considered for revision, and this may significantly alter the development potential of the remaining large blocks of undeveloped lands, which can accommodate nearly 400 units under present County policies.

The development of La Cresta and Ring Mountain will complete most of the potential development of the western end of the Tiburon Peninsula. La Cresta's proposal for annexation to Tiburon has been approved. Along the north, along Paradise Drive, pockets of incorporated areas are interspersed with unincorporated development. Although the town has not yet rezoned this area, its general plan recommends that any development proposals along Paradise Drive should be monitored to determine if the project would overtax or adversely affect services.

Minor revisions along the Tiburon/Corte Madera boundary, as mutually determined by the two towns, should be made to follow the ridgeline. Services to the Tiburon sphere of influence are provided by a variety of municipal agencies and special districts, including two fire protection districts and three wastewater agencies. Possible alternatives for maintaining quality services include consolidation of services, contracting with other service agencies, or establishing joint powers agreements with other service agencies.

Urban Service Area

The urban service area should be coterminous with the existing sphere of influence, including the proposed revision around Ring Mountain with Corte Madera (see Figure 5.2). The boundary should be revised, in accord with future adjustments approved by LAFCo.

Implementation

County actions: Amend Strawberry Community Plan in conjunction with both Tiburon and Mill Valley; continue to process development plans in coordination with the cities; maintain or rezone for low density the northern portion of the peninsula and other unincorporated areas surrounding Ring Mountain and La Cresta; refer all development applications to both Tiburon and Mill Valley.

Suggested City actions: Both Tiburon and Mill Valley should indicate any interest, ability, and willingness to annex all of the areas within spheres of influence and within the shaded area shown on the attached map; Tiburon should initiate action to prezone land within its urban service area. Tiburon's council adopted Resolution No. 1148 (March 18, 1981) supporting the concept of joint processing of development plans within the existing sphere of influence.

Suggested LAFCo actions: Explore annexation possibilities with cities, particularly Ring Mountain and other large developments; consider initiating studies of reorganization/consolidation of fire protection and wastewater agencies; encourage development to occur in cities by requiring annexation to city along with annexation proposals to sanitation districts.

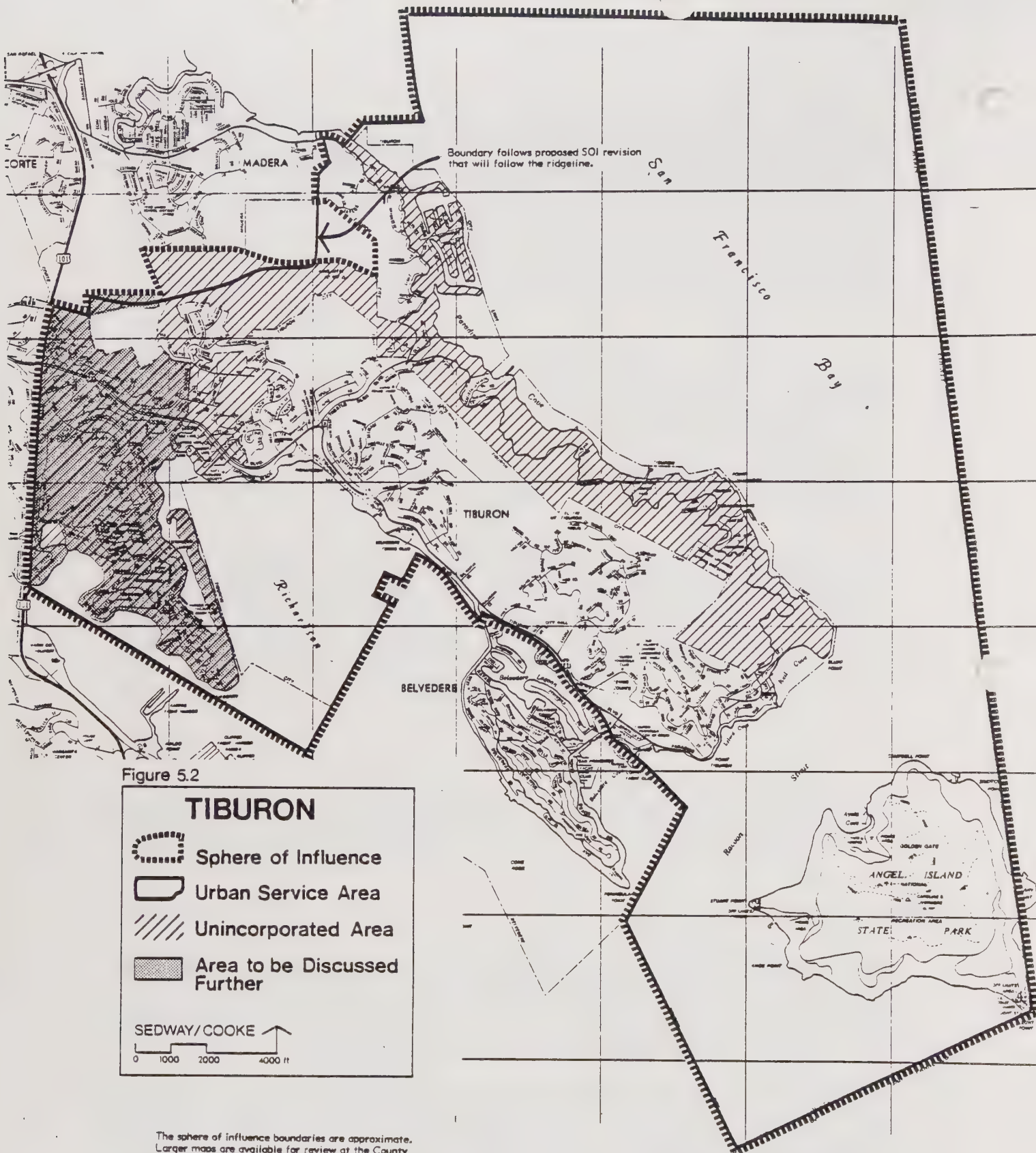


Figure 5.2

The sphere of influence boundaries are approximate. Larger maps are available for review at the County Planning Department and at Marin LAFCo.

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Belvedere

The city is fully developed except for a few parcels. There are no unincorporated areas within the city's sphere of influence. All services are available and have recently been, or are being, upgraded.

Urban Service Area

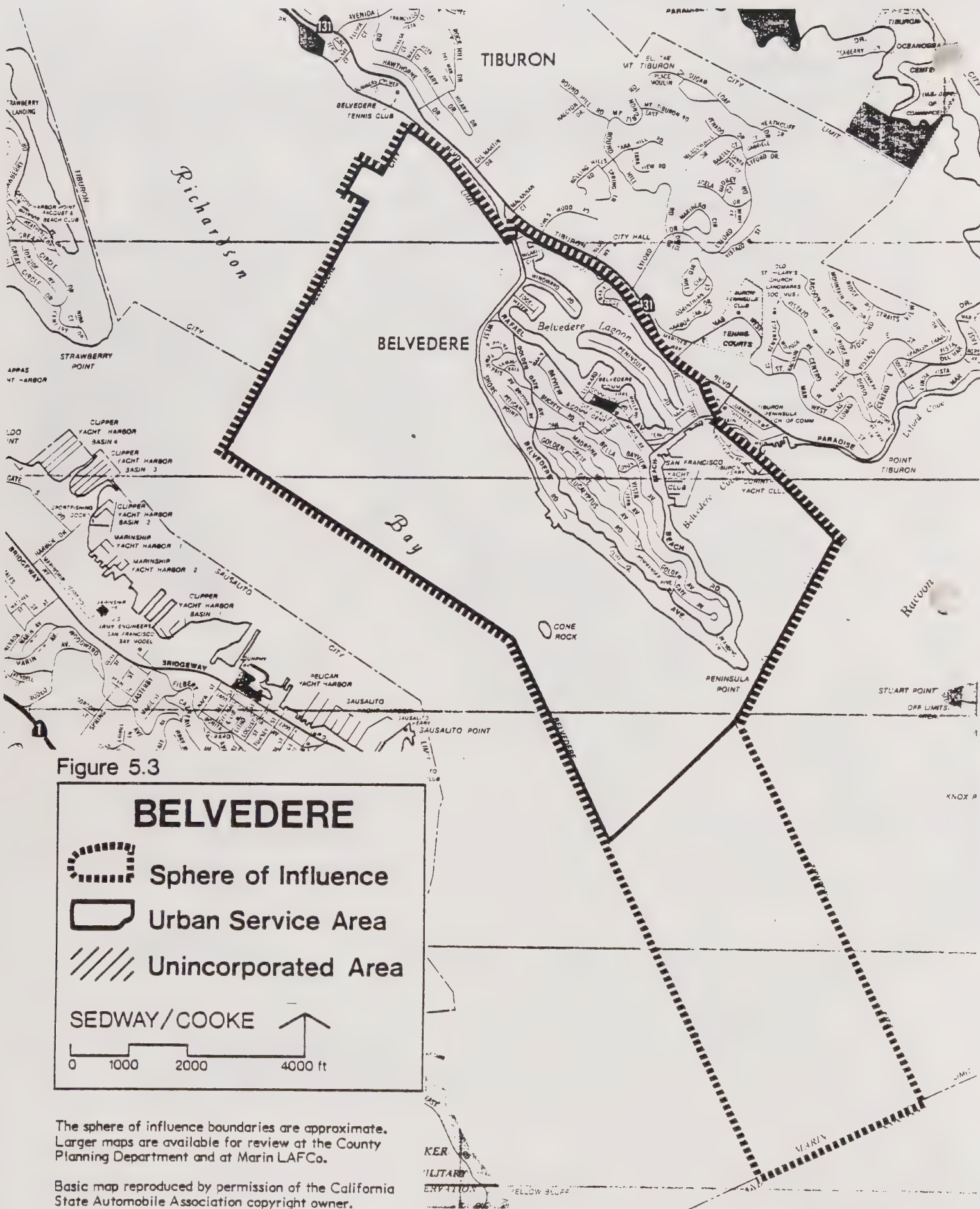
It is recommended that the urban service area be coterminous with the existing city limits (see Figure 5.3).

Implementation

County actions: none needed.

Suggested City actions: none needed.

Suggested LAFCo actions: none needed.



Mill Valley

The Mill Valley sphere of influence lies to the west of Highway 101 opposite the unincorporated community of Strawberry and is bordered by Sausalito on the south and Corte Madera on the north (see Figure 5.4). The town of Mill Valley accounts for approximately 60 percent of the population within the sphere of influence. The town is nearly 90 percent built out, and it is estimated that full development of the vacant areas will occur within 10 years. A number of unincorporated communities exist within the sphere of influence, including Alto, Almonte, Tamalpais Valley, Homestead, Muir Woods Park, and Tennessee Valley. These areas, predominantly single-family residences, range in character from conventional suburban neighborhoods to a low density, semi-rural setting. A dated community plan is the policy document guiding development of the area. It is also covered in the Mill Valley general plan, which identifies the entire area as a protected neighborhood. Potentially, the most serious planning/public service issue is the development of the numerous small, existing lots of record, which could conservatively result in 100-200 new units within the next ten year period. This level of development will impose a significant service demand and will make it difficult to preserve the rural-like living environment of the area.

Mill Valley provides the full range of public services and has the capability of serving the entire sphere of influence, as well as areas to the south in the Sausalito sphere of influence and east in the Tiburon sphere of influence. Accordingly, an expansion of Mill Valley's sphere of influence could be considered, although such a determination must be made by LAFCo after careful evaluation of socio-economic, institutional, and other service factors.

Urban Service Area

Isolated pockets of urban development such as Alto should be included in the urban service area, and considered for annexation as provided for by the policies herein. Because the town already provides wastewater treatment to Homestead, Almonte, and Kay Park sanitary districts and because fire protection services, by virtue of the consolidation of the town fire department and Tamalpais Valley Fire Protection District, are offered nearly everywhere in the sphere of influence, it is recommended that the urban service area include all unincorporated areas to the southwest within the present sphere of influence with the exception of the Muir Woods Park area (see Figure 5.4). This area is excluded because it is served by neither Mill Valley nor the Tamalpais Fire Protection District; it is connected neither to the Mill Valley wastewater collection system nor to the Tamalpais CSD; and surrounding geologic/slope constraints render it unsuitable for much further development. However, Mill Valley is in the process of rezoning the area. On the basis of services, there is some rationale for considering the inclusion of portions of Strawberry, south of Tiburon Boulevard, within Mill Valley's urban service area. However, this area now lies within the Tiburon sphere of influence and resolution of the competing interests will come only after discussions among Mill Valley, Tiburon, and LAFCo.

Implementation

County actions: Amend Tamalpais Community Plan as necessary in coordination with Mill Valley; continue to implement development plans in coordination with the town; refer development plans within the urban service area to the town.

Suggested Town actions: Prezone unincorporated areas within the urban service area; indicate interest, ability, and willingness to annex areas within the area; indicate interest in the shaded area east of Highway 101 and within the Tiburon sphere of influence.

Suggested LAFCo actions: Encourage more efficient provision of services through consolidation/elimination of certain districts; explore annexation alternatives with Mill Valley and the unincorporated communities; investigate possibility of amending the Mill Valley/Tiburon and Mill Valley/Sausalito sphere of influence.

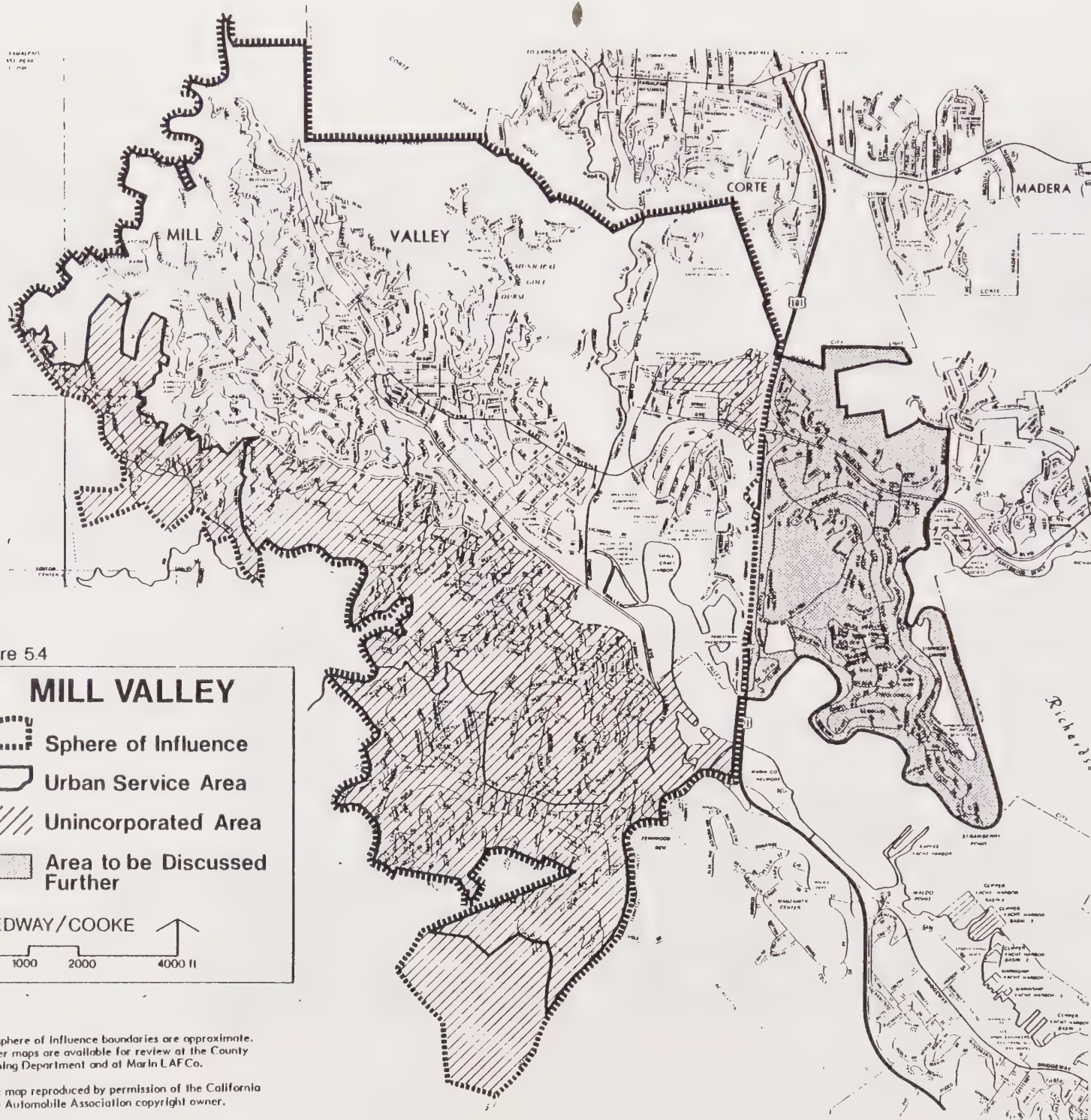
Future actions: Investigate possibility of treating wastewaters collected by the Tamalpais CSD at the Mill Valley treatment plant where there is a design capacity in excess of the buildout of the service areas, rather than at the Sausalito-Marin City Sanitation District facility, where it appears there will be insufficient capacity to accommodate the ultimate development potential.

Figure 5.4



The sphere of Influence boundaries are approximate. Larger maps are available for review at the County Planning Department and at Marin LAFCo.

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Corte Madera

The town limits of Corte Madera are nearly coterminous with its sphere of influence (see Figure 5.5). An aggressive annexation program over the late 1970's saw the community annex all of its unincorporated pockets, leaving only three unincorporated areas, Lucky Drive, Greenbrae Boardwalk, and Ring Mountain. There is still considerable room for growth within Corte Madera, and the majority of that potential is expected to develop within the next five to ten years. The only sizeable area with development potential in the unincorporated area is the Ring Mountain area at the town's southeastern border. However, it appears that the 85 units potentially developable in this entire area, which bounds Corte Madera and Tiburon, will locate on the Tiburon side.

Services are available and can accommodate the unincorporated areas. The biggest impact on services stems from the growth the town is anticipating over the next five years.

Urban Service Area

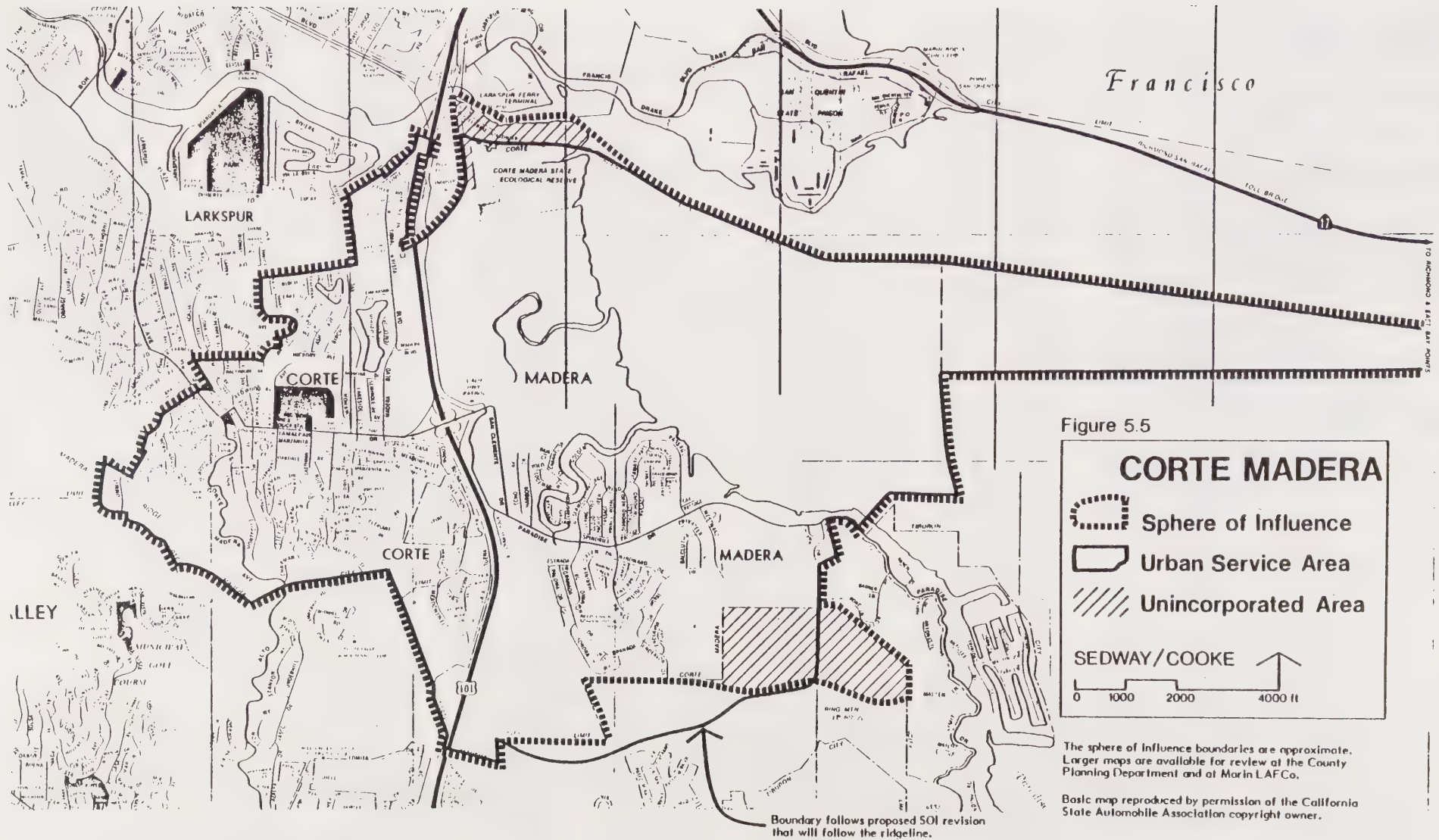
Minor adjustments to the sphere of influence are proposed along the town's border with Tiburon. Also, consideration should be given to shifting Greenbrae Boardwalk from Corte Madera's sphere of influence to Larkspur's. With these changes, it is recommended that the urban service area be coterminous with the town's sphere of influence as shown in Figure 5.5.

Implementation

County actions: Maintain or rezone the unincorporated area for very low development intensities to avoid preempting future development options desired by Corte Madera; refer development applications for the Ring Mountain area for town review, comments, and approval.

Suggested Town actions: Continue pursuit of earliest possible annexation of Ring Mountain area, which town has already prezoned.

Suggested LAFCo actions: Encourage development to occur in the town by requiring developer to annex to town as a condition for annexing to the sanitary district; amend spheres of influence to reflect minor adjustments between Corte Madera and Tiburon border; the possibility of including the Greenbrae Boardwalk in Larkspur's sphere of influence should be subject to further study by LAFCo.



Larkspur

The city's sphere of influence stretches from the Marin Municipal Water District's watershed in the west to the end of the San Quentin Peninsula in the east (see Figure 5.6). Several well-established unincorporated communities surround the city (Greenbrae, Kentfield, and Kentfield Woodlands), and approximately one-third of the population within the sphere of influence resides outside the city. Because the potential residential and commercial development in the unincorporated communities is minimal, it is unlikely to have much of an impact on city services. In contrast, the City still has significant development potential, particularly in Tiscornia and Larkspur Landing, where growth could increase existing population by 20-30 percent.

Minor adjustments to the sphere of influence, involving the Greenbrae Boardwalk, are recommended to facilitate access. A major issue that warrants further study by LAFCo is the proposal by the city to reduce its sphere of influence to exclude the unincorporated communities of Kentfield and Kentfield Woodlands, while retaining Murray Park, Greenbrae, and San Quentin Peninsula.

Urban Service Area

The recommended urban service area for Larkspur coincides with the city's proposal (see Figure 5.6). Future residential or commercial development on the San Quentin Peninsula would be most efficiently served by the city's police and fire departments and should be included in the city's urban service area.

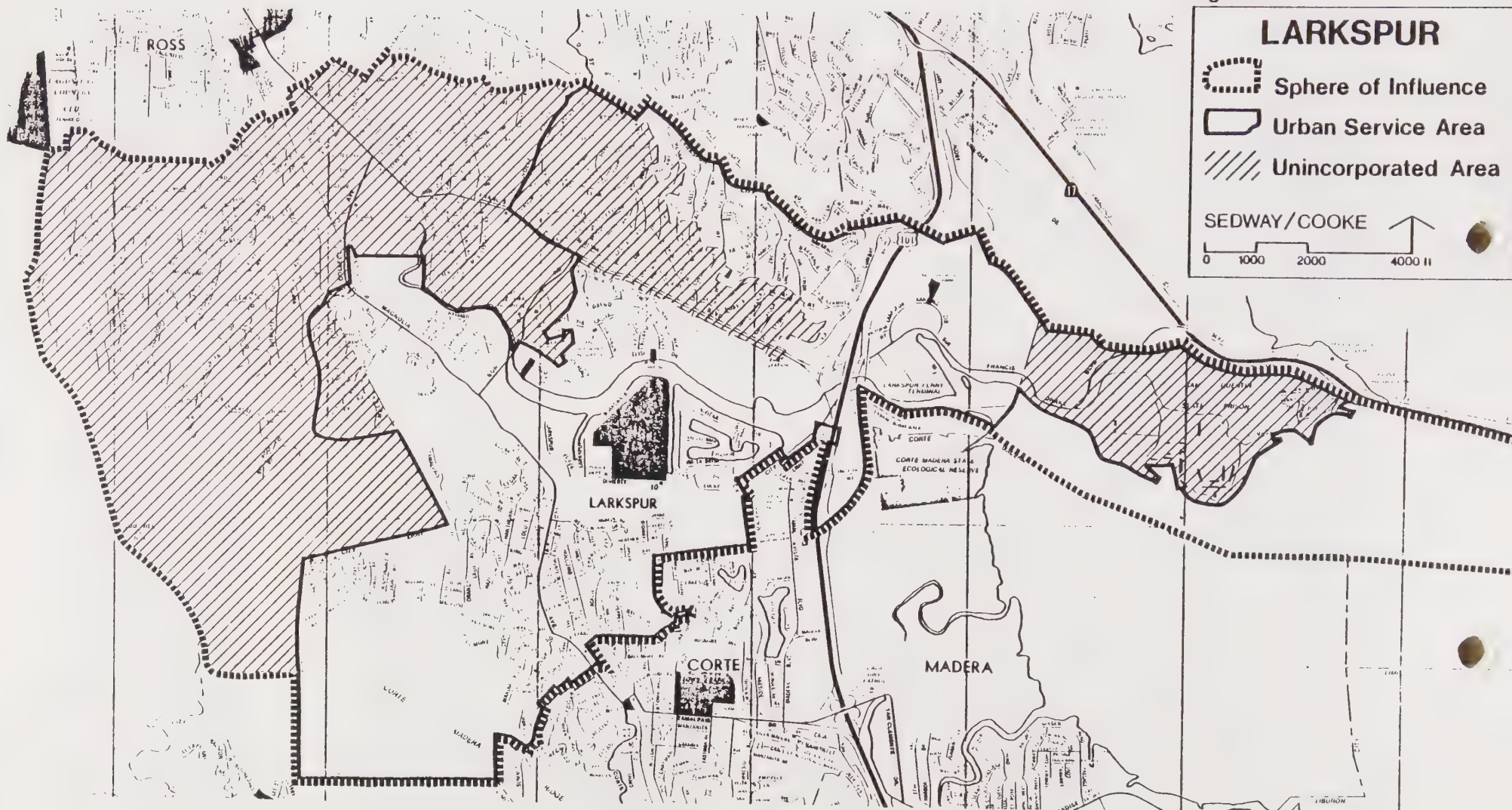
Implementation

County actions: Undeveloped areas should be maintained or rezoned for low intensity uses only; all development proposals should be referred to the city.

Suggested City actions: Indicate interest, ability, and willingness to annex unincorporated areas within the urban service area, Greenbrae and Murray Park, and the Greenbrae Boardwalk. Initiate efforts to assume responsibility currently performed by the Murray Park Sewer Maintenance District. Review recently updated land use policies for Kentfield.

Suggested LAFCo actions: Review city's proposal to substantially alter its sphere of influence boundaries; explore annexation opportunities with unincorporated communities and the city; consider amendment of present sphere of influence to include the Greenbrae Boardwalk should be subject to further study by LAFCo.

Figure 5.6



The sphere of influence boundaries are approximate.
Larger maps are available for review at the County
Planning Department and at Marin LAFCo.

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San Rafael

San Rafael is currently the County's largest city with a population of nearly 45,000. Its sphere of influence covers a vast expanse stretching over two broad alluvial valleys, the Las Gallinas and the San Rafael basins (see Figure 5.7). Most of the area in the Las Gallinas Valley is unincorporated and includes the communities of Lucas Valley and Marinwood. Within the San Rafael basin, there are approximately 1,380 acres of developable land, most of which lies within the city. The Las Gallinas Valley contains over 4,800 developable acres, most of which lies in the unincorporated areas.

The city has shown little interest in annexing the several large developed, unincorporated islands; in part, because these areas would require substantial public investment to bring services up to the city's standards. Because of the vast amount of land that remains undeveloped, it is imperative that the County and city work closely to insure that urban development occurs in the city. Significantly, there are large developable areas (e.g. Luiz-Grady) that are now annexable to the city. Once these areas to develop, it will become much more difficult to annex the territory. Rather than dealing with just a handful of property owners, which is the situation prior to the development, the city may have to contend with hundreds of owners after development.

The City is capable of serving the growth projected within the city. Because future development will occur as infill, police, fire, and wastewater collection services will not have to be extended. Many of the unincorporated pockets receive services directly from the city through contractual arrangements with the County or through joint powers agreement with special districts.

In the undeveloped, unincorporated areas with regard to police services, the city does not possess the administrative capabilities, the equipment, and the communications apparatus to absorb all the additional areas. With regard to fire protection, future development of the magnitude proposed for Luiz-Grady, St. Vincent's/Marinwood, Daphne, and St. Vincent's/ Silveira would require significant capital investment as well as increases in staffing and equipment. The San Rafael Fire Department and the Marinwood Fire Department have entered into a joint powers agreement to offer fire protection to these areas. Nevertheless, services must be improved, particularly those of Marinwood Fire Department, in order to provide adequate protection and to assure that the responsibility is shared so that neither department is performing more than its fair share. With respect to wastewater services, two districts virtually serve the entire sphere of influence, except for a few large undeveloped areas. Sufficient capacity will be available at the proposed facilities to accommodate the buildout population if current budgets, schedules and Federal funding commitments do not change.

Urban Service Area

The developed, unincorporated pockets currently served by CSA 19 should be included in San Rafael's urban service area. Basically, these are areas that the city can serve relatively easily without needing to extend services. If further development of Lucas Valley and Marinwood is anticipated, it should occur within San Rafael's urban service area, consistent with the city's development policies and zoning, and LAFCo and County urban service area policies. Because of flood and seismic hazards around Santa Venetia, both the developed and undeveloped lands in Santa Venetia should be excluded from the urban service area.

With respect to the major undeveloped areas, inclusion within the San Rafael urban service areas depends on the availability of services. The Luiz-Grady properties are currently being considered for development and new development would be appropriate within the city's urban service area; however, such development may be premature since the area is not receiving services. Accordingly, it is appropriate to exclude this area from the urban service area, along with the other surrounding, outlying properties including Luiz South, for the time being. However, the city is in the process of reviewing the appropriateness of including these areas and therefore Figure 5.7 designates them as areas for further discussion. Additionally, the County faces a State-mandated obligation for timely processing of applications that must be recognized and could modify the implementation of the urban service area policies for these areas. If it should be necessary for the County to proceed with these applications, it will do so in the closest cooperation and consultation with the city of San Rafael.

The St. Vincent's/Silveira site is currently under agricultural contract. This area is designated in the Countywide Plan as a major growth area for both business development and housing opportunities. The agricultural contract has not been renewed, so that the area will be available for development within the next few years. Moreover, the area is contiguous to San Rafael. In light of its prominence in the Countywide Plan, the need to insure an adequate level of service, and the necessity of coordinating the development of these parcels with development in San Rafael, this area is included in the proposed urban service area for San Rafael.

Regarding the southern portion of the Peacock Gap neighborhood, the San Rafael police and fire departments already serve the area immediately to the north, and development in this unincorporated area would not burden existing service capabilities. The area is contiguous to the city and would be most efficiently served by the city. However, because development of this area is not expected over the next five years and it is currently designated as a Mineral Resource Area in the City's Peacock Gap Neighborhood Plan, it should not be included in the urban service area at this time.

Implementation

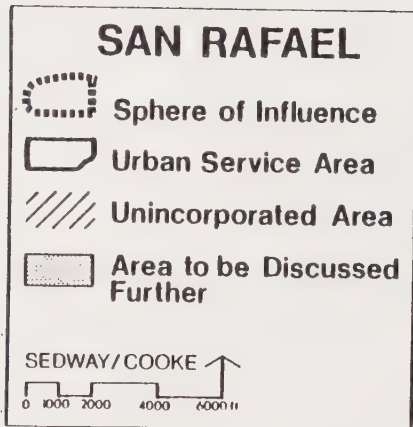
County actions: The County should rezone areas excluded from the urban service area for non-urban uses, provided this can be done in compliance with the State-mandate cited above. It is believed that the vast development potential of the Luiz-Grady and Luiz South properties even at the present low densities may represent premature urbanization of the Lucas Valley. When services become available, these areas can be rezoned to permit development consistent with the availability of services. The city's interest in annexation must be identified as soon as possible.

The St. Vincent's/Silveira site represents a prime development opportunity within the San Rafael urban service area. Once the agricultural contracts expire the area should be rezoned for planned residential and commercial activities consistent with other policies in the Countywide and City General Plan. It is conservatively estimated that the development potential of this area could conceivably triple the present development potential of 795 units.

Suggested City actions: The city should indicate its interest, ability, and willingness to annex unincorporated areas within its urban service area and its SOL. Because of the large number of areas, it would be beneficial for the city to identify which annexations are of higher priority and concentrate its efforts on those areas. The city should prezone the unincorporated areas within its urban service area, particularly the St. Vincent's/Silveira site. The city's interest in annexing the Luiz Grady and Luiz South properties must be identified as soon as possible.

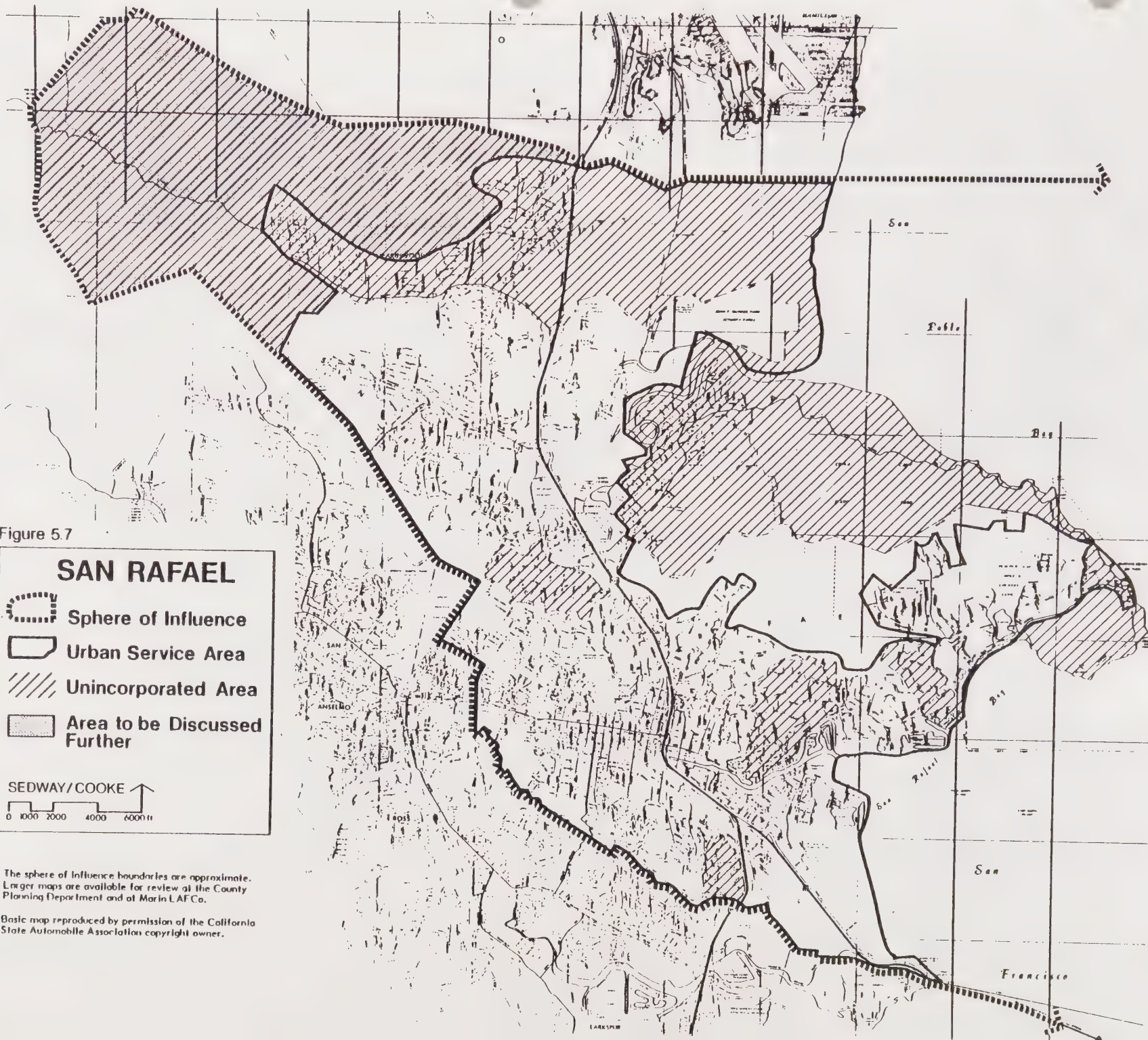
Suggested LAFCo actions: The Marin LAFCo through its approval authority for annexations can preclude annexations to special districts that make future annexations to the city more difficult (Service Hierarchy Policy). This is particularly important in areas that have significant development potential and have been excluded from the urban service area. Minor adjustments to the existing sphere of influence along the San Rafael/San Anselmo border should be considered, consistent with the City of San Rafael's Neighborhoods 13/14 Plan. LAFCo should continue its efforts to encourage the city to annex unincorporated islands.

Figure 5.7



The sphere of influence boundaries are approximate. Larger maps are available for review at the County Planning Department and at Marin LAFCo.

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Ross

The Ross sphere of influence lies along the western edge of the City-Centered Corridor and is bound by San Anselmo to the north, San Rafael to the east, and Kentfield to the south. The town of Ross is essentially built out and the only undeveloped, unincorporated lands lie within the jurisdiction of the Marin Municipal Water District. Although there has been some discussion of the Marin Municipal Water district opting to develop some of its lands, the town has designated this area as "Open Recreation" in its general plan with the intent of maintaining it for open space and/or recreational purposes.

Urban Service Area

It is recommended that the urban service area be coterminous with the town limits (see Figure 5.8). The Town may in the future wish to include the Ross Hospital area, and this should be reviewed during future revisions of the boundaries.

Implementation

County actions: None needed.

Suggested Town actions: None Needed.

Suggested LAFCo Actions: None needed.

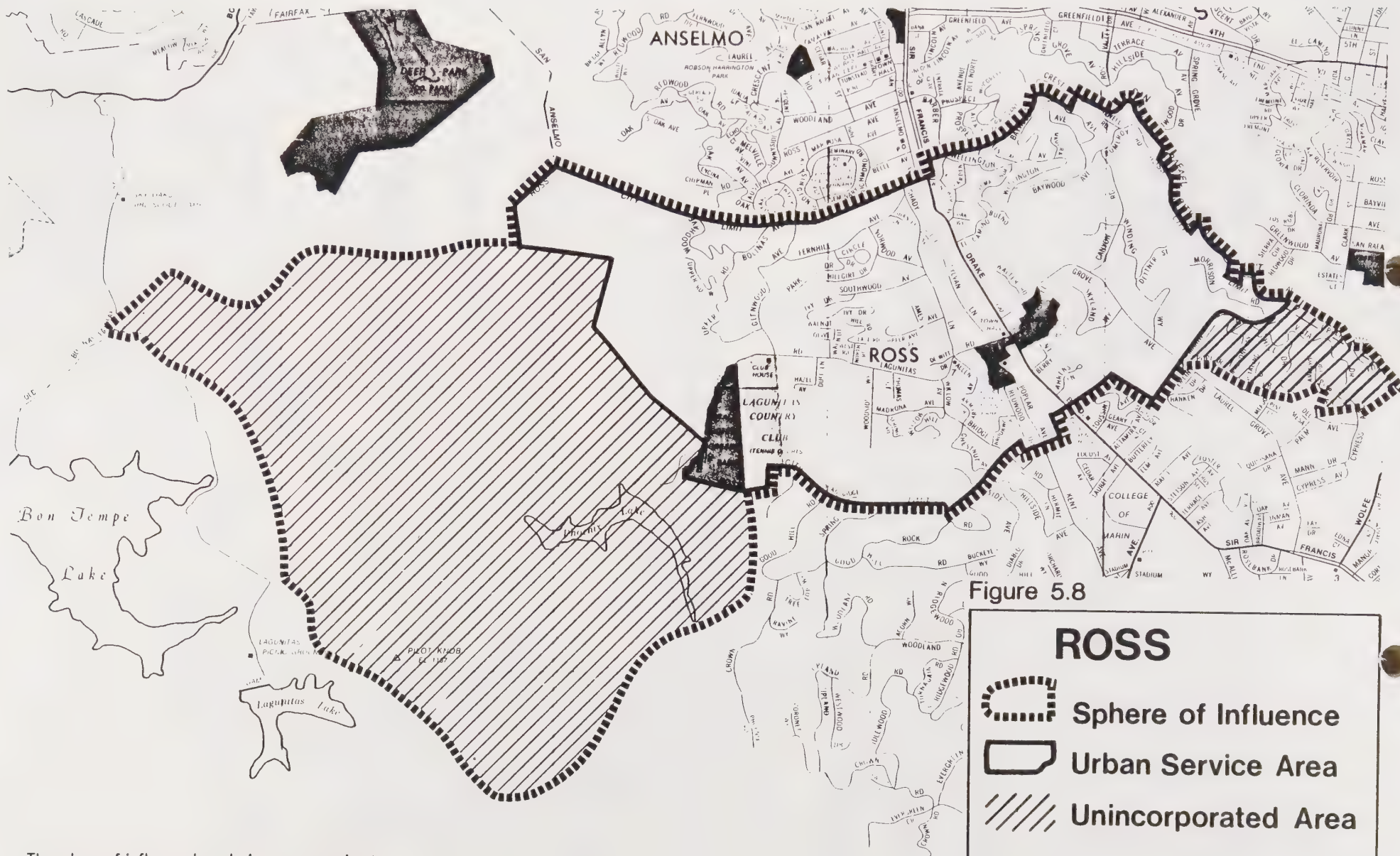


Figure 5.8

The sphere of influence boundaries are approximate. Larger maps are available for review at the County Planning Department and at Marin LAFCo.

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San Anselmo

The San Anselmo sphere of influence, situated in Upper Ross Valley, is bound by Fairfax on the west, San Rafael on the east, and Ross on the south. San Anselmo is approximately 95 percent built out, and much of the remaining development potential within the city is subject to strict hillside development policies. Steep slopes constrain development in the unincorporated areas surrounding the city to the north and east, however, there is some development potential. The one existing developed unincorporated community, Sleepy Hollow, has indicated its desire to remain independent and unincorporated, although the city has adopted a neighborhood plan for Sleepy Hollow as part of its general plan. County and city land use policies in the unincorporated areas are compatible.

Services within the city are available and adequate. Only at the end of hilly, winding roads are response times less than desirable. The unincorporated areas of the San Anselmo sphere of influence can only be accessed by travelling through the city. Consequently, in practically every situation the city police and fire departments can respond more rapidly to calls for service than can County service agencies.

Minor revisions are recommended in the Mt. Tamalpais Cemetery area, along the San Rafael border, for reasons of access.

Urban Service Area

Because of the impact that development in the unincorporated areas has on city services, it is recommended that the San Anselmo urban service area be coterminous with its sphere of influence, but exclude the open space areas, designated in the Countywide Plan, as illustrated in Figure 5.9.

Implementation

County actions: Maintain low density zoning in all unincorporated areas and refer all development applications to the city.

Suggested City actions: Prezone all unincorporated areas within the urban service area and indicate interest, ability, and willingness to annex.

Suggested LAFCo actions: Continue to promote sphere of influence amendment in the Mt. Tamalpais Cemetery area; encourage annexations of unincorporated areas to San Anselmo.

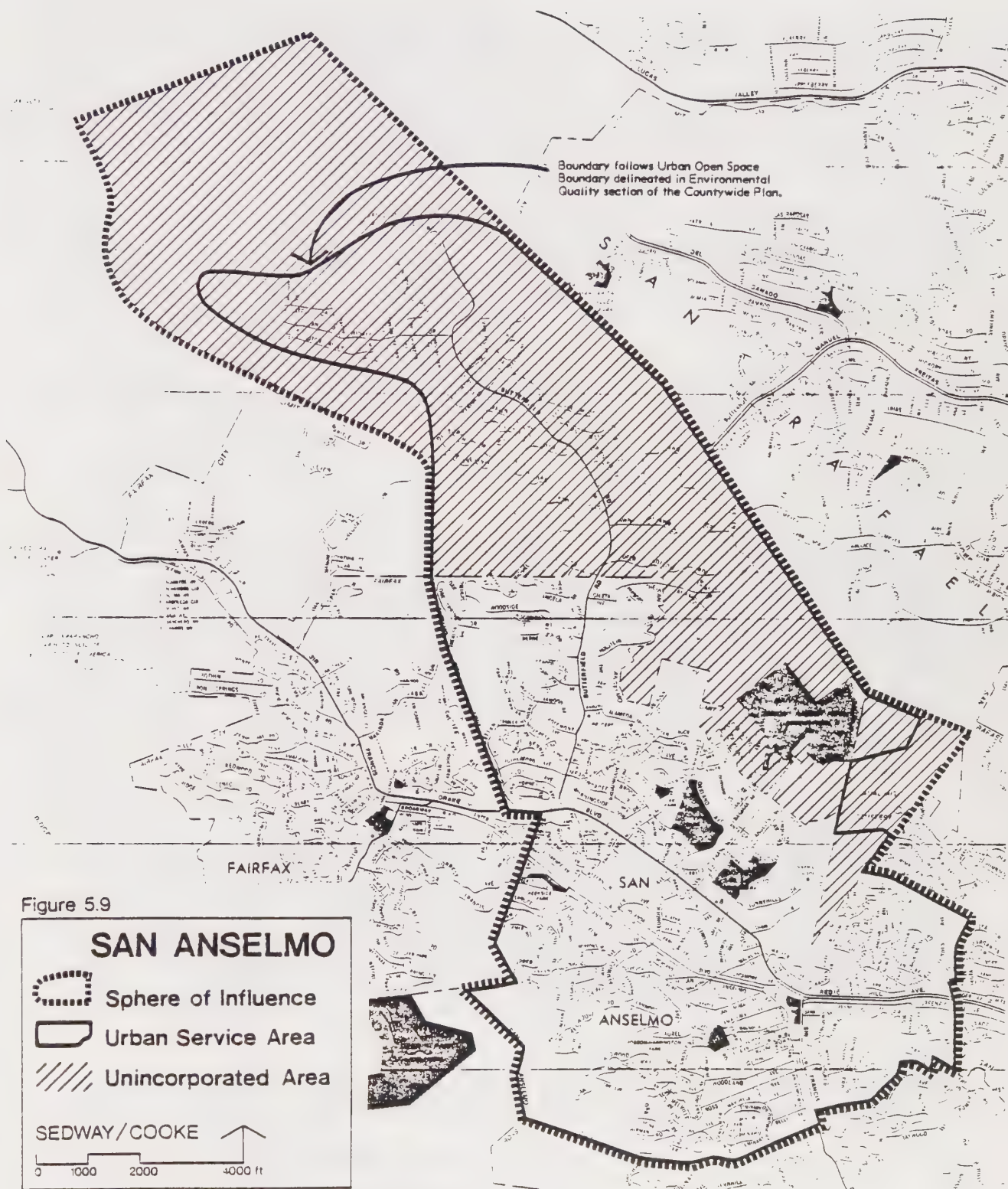


Figure 5.9

The sphere of influence boundaries are approximate. Larger maps are available for review at the County Planning Department and at Marin LAFCo.

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Fairfax

The Fairfax sphere of influence covers an extensive area, much of which lies in public or quasi-public uses. The greatest development potential lies with the existing lots of legal record that are dispersed throughout the urbanized portions of the community. Buildout of Fairfax is projected to occur slowly and will increase the town's present population by only 11-14 percent. Most of the unincorporated areas are already fairly well developed, and the only remaining large vacant parcels include the area above Circle V.

The development of unincorporated territory has occurred as planned developments in a clustered fashion along the main arteries that serve Fairfax, such as Sir Francis Drake Boulevard and Bolinas Road. The concentration of residences into these corridors results in a level of development requiring urban services, even though the project may have a very low density over the entire project area.

Because unincorporated areas have developed adjacent to or just beyond the town limits, County sheriff deputies and firefighters must travel on city streets to reach their destinations.

Urban Service Area

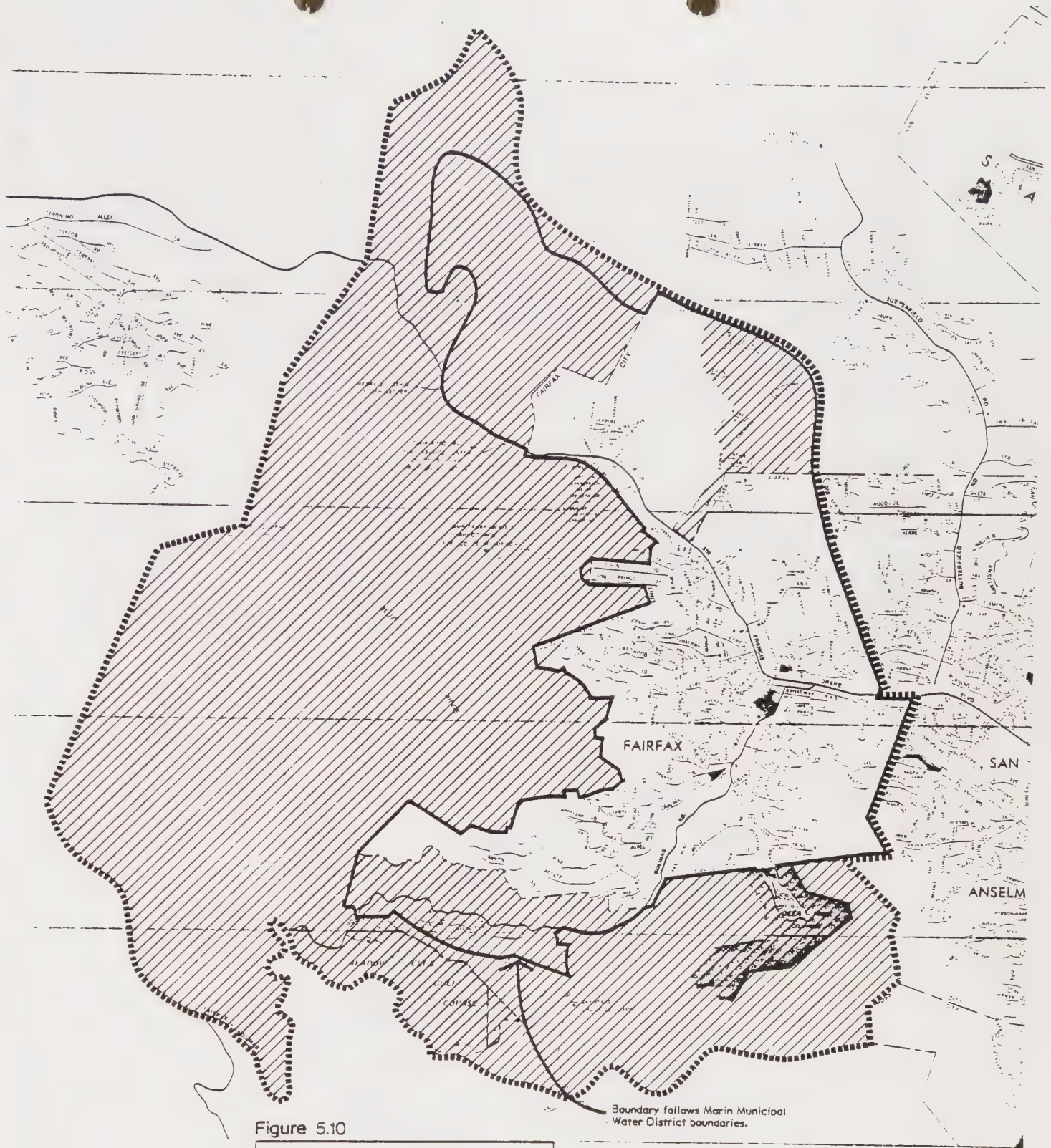
It is recommended that the Fairfax urban service area should be coterminous with its existing sphere of influence, but exclude lands under the jurisdiction of the Marin Municipal Water District, the Girl Scouts, the Boy Scouts, and lands that have been designated as ridge and upland greenbelt in the Countywide Plan. This means that the following unincorporated areas should be regarded as part of the urban service area: the land extending from the town limits out to and including the Monte Cristo Tract, Oak Manor, above Circle V, and small areas at the end of hillside roads currently served by the County Fire Department. This area is generally outlined in Figure 5.10.

Implementation

County actions: Maintain or rezone unincorporated areas within the urban service area for low intensity uses; refer all development applications to the town.

Suggested Town actions: Amend general plan and implementing ordinances to include all areas within the designated urban service area; prezone these areas; indicate interest, ability, and willingness to annex; consider feasibility of improving service levels by consolidating services with other service agencies or contracting for services.

Suggested LAFCo actions: Facilitate annexation of areas to the town; consider proposal to reduce the present sphere of influence to exclude undeveloped public lands.



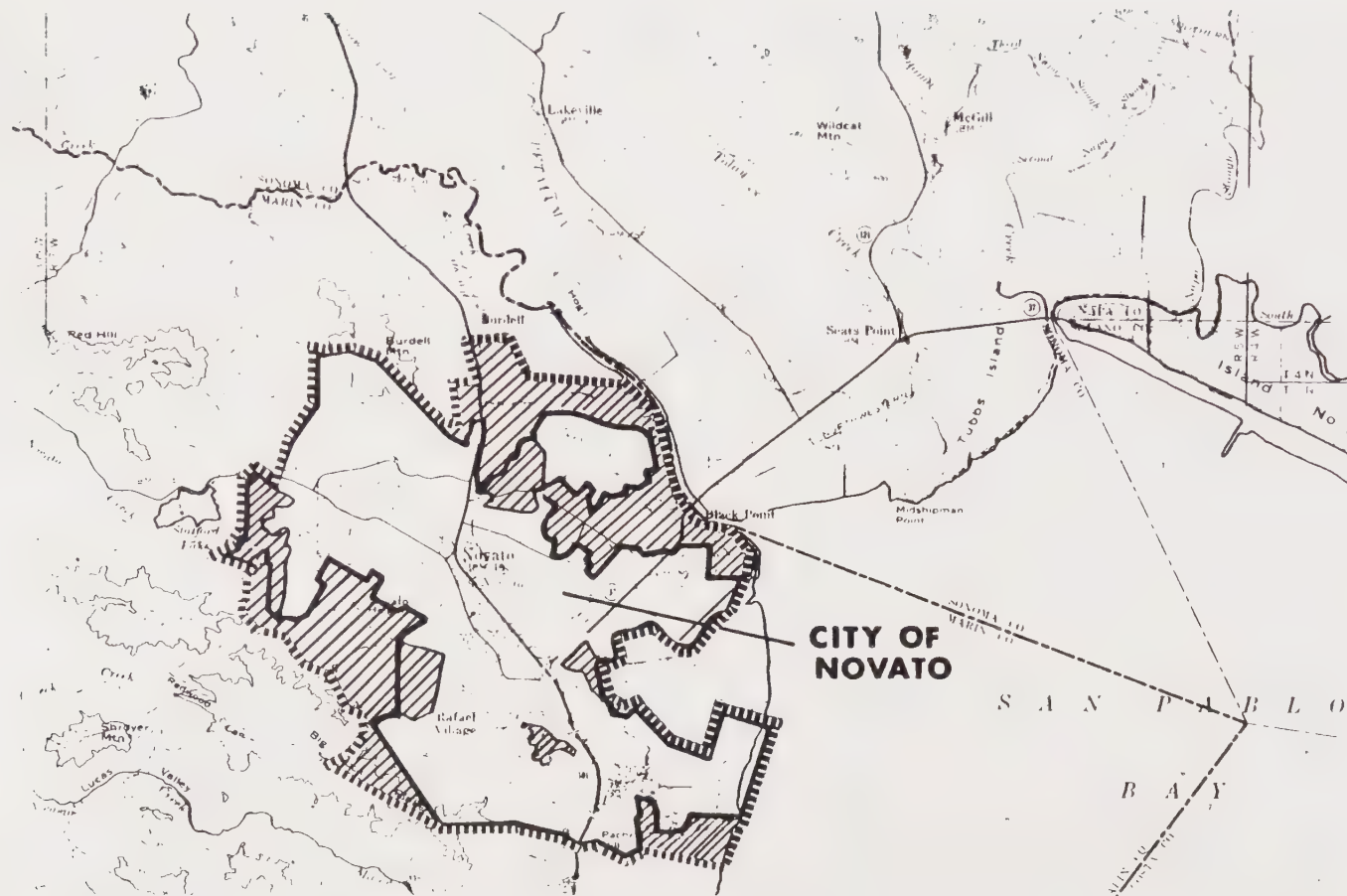
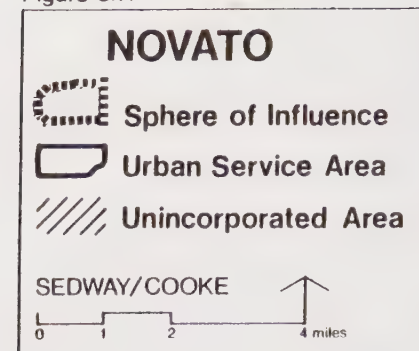
Novato

The Novato sphere of influence occupies the northern end of Marin County's urban City-Centered Corridor and extends over 75 square miles. The city of Novato has a population of 41,205, according to the 1980 Census final field count. Another estimated 7,800 people reside in the unincorporated area. With roughly 9,200 more units potentially developable (of which nearly 75 percent lie in Novato), this sphere of influence will continue to feel intense development pressure. Major unincorporated areas on the city's fringes include Blackpoint, Atherton Avenue, Pinheiro Ridge, North Novato, West Novato, Indian Valley, Pacheco-Indian Valley College, and Bel Marin Keys. Significant growth opportunities still remain within both incorporated and unincorporated areas of the sphere of influence. The city estimates another 21,000 people could be accommodated in the city alone.

Urban Service Area

A detailed analysis of Novato's services is available in the Novato Community Urban Services Area and Sphere of Influence report prepared for LAFCo (May 1980). The County will favorably consider the policies for the Novato area as adopted by LAFCo as part of the Countywide Plan amendment. It would then be incumbent upon the County to undertake rezonings for consistency with the urban service area policies in the Countywide Plan. Figure 5.11 generally shows the urban service area boundary for Novato.

Figure 5.11



The sphere of influence boundaries are approximate. Larger maps are available for review at the County Planning Department and at Marin LAFCo.

B. WEST MARIN

Methods of implementing the village development policies are summarized in Table 5.2.

TABLE 5.2
IMPLEMENTATION METHODS FOR VILLAGE DEVELOPMENT POLICIES

	Specific Plan Adoption	Revised Zoning	Incremental Zoning	Historic Zoning	Use Permits & Variances	Open Space Acquisition	Open Space Contracts	Agricultural Contracts	Development Rights Transfers	Planning Commission Reviews	Local Housing Cooperatives	Inter-Agency Coordination	Capital Improvements Reviews	New Small-Scale Utility Techniques	Environmental Impact Reviews
1. Set boundaries	X	X				X				X					X
2. Discourage large developments	X	X	X			X	X			X	X				X
3. Coordinate match services to planned growth rates as projected in plan												X	X	X	
4. Encourage diversity in lot sizes and architecture		X				X			X						
5. Permit agriculture in villages		X			X		X	X							
6. Preserve historic structures	X			X											
7. Permit only small tourist services in villages	X	X								X					X

PART 6. HOUSING ELEMENT

I. BACKGROUND

A. PURPOSE

The State Legislature has found that the availability of housing is of statewide importance and that the "early attainment of decent housing and a suitable living environment for every California family is a priority of the highest order." To ensure that counties and cities recognize their responsibilities to the attainment of the statewide housing goal, the State, via Assembly Bill 2853, has required local governments to prepare and implement housing elements as part of their General Plans.

According to AB 2853, the Housing Element shall consist of "an identification and analysis of existing and projected housing needs and a statement of goals, policies, quantified objectives, and scheduled programs for the preservation, improvement, and development of housing."

The County of Marin has prepared its Housing Element to meet the requirements of state law and to incorporate new information from the 1980 Census, Projections '83 and the Regional Housing Needs Determinations. After being reviewed by the State Office of Housing and Community Development for compliance with AB 2853, the Housing Element was approved by the Board of Supervisors on June 26, 1984. The time period for which contents of the element are applicable is 1985 through 1990. The County is required to revise the Housing Element by January 1, 1990 and every five years afterwards.

Although the policies and quantified objectives stated in this element apply to the unincorporated portion of Marin County only, information from the cities and towns in Marin County is included.

MARIN IN A REGIONAL CONTEXT

After placing Marin County in a regional context with a discussion of population, housing units, and household size, the first section of the document will review the price of housing in Marin vis a vis other Bay Area counties. It will emphasize several factors which contribute to the level of prices; the incomes, occupations, and educational attainment of Marin's residents.

Population, Housing, Households

In a region of over five million people, Marin is a small county. With a population of 222,568, it contains 4.3% of the Bay Area's population. Among the nine counties in the region, only Napa contains fewer people.

With 92,649 housing units, Marin has 4.5% of the regional total, a slightly higher percentage of housing units than population. Households in Marin tend to be relatively small compared to other Bay Area counties. The median household size is 2.15 persons. Only San Francisco, with 1.78, has a lower median household size. (The Bay Area as a whole has a median of 2.2 persons per household.) Table 1.1 places Marin in regional context by comparing its population, number of housing units, and median household size with the other counties and the region.

Table 1.1

POPULATION, HOUSING, MEDIAN HOUSEHOLD SIZE Bay Area Counties, 1980

	Population	Percent of Region	Housing Units	Percent of Region	Median Household Size
Santa Clara	1,295,071	25.0	473,817	23.0	2.41
Alameda	1,105,379	21.3	444,607	21.6	2.13
San Francisco	678,974	13.1	316,608	15.4	1.78
Contra Costa	656,380	12.7	251,951	12.2	2.37
San Mateo	587,329	11.3	233,200	11.3	2.23
Sonoma	299,681	5.8	124,189	6.0	2.23
Solano	235,203	4.5	84,270	4.1	2.49
MARIN	222,568	4.3	92,649	4.5	2.15
Napa	99,199	1.9	40,052	1.9	2.21
Bay Area	5,179,784	100.0	2,061,343	100.0	2.22

SOURCE: U.S. Census of Population and Housing, 1980

Housing Prices and Rents

In addition to being known for the natural beauty of the countryside, Marin is also well known for being an expensive place to live. A survey of median home prices and rents shows this to be true. In a region of high prices and rents, Marin has the highest. Half of the homes in Marin are valued at more than \$151,000. This is 54% more than the Bay Area median of \$98,100 and over 20% more than a comparable home in San Mateo, the second most expensive county.

Because rents tend to correspond with home prices, counties with relatively expensive homes have relatively high rents. Marin has the highest median rent in the Bay Area, \$348. This is 27% higher than the median rent in the region and over 10% higher than the median rent in San Mateo. Table 1.2 lists the median home prices and rents for each of the Bay Area counties, region and state. Prices and rents correspond; counties with high prices have high rents and vice versa.

Table 1.2

MEDIAN HOUSE PRICES AND RENTS Bay Area Counties, 1980

	Median House Price	Median Rent
MARIN	\$ 151,000	\$ 348
San Mateo	121,400	313
Santa Clara	109,400	308
San Francisco	104,600	267
Contra Costa	94,600	268
Sonoma	88,400	256
Alameda	85,300	240
Napa	78,200	249
Solano	67,500	218
Bay Area	98,100	274
California	84,700	253

SOURCE: U.S. Census of Population and Housing, 1980.

If the prices and rents listed in Table 1.2 seem low, especially to families looking for housing today, a second source of price information corresponds more closely to the reality of the housing market. Each year the Marin County Board of Realtors publishes the average sales prices of homes sold via the Multiple Listing Service. Not only does the annual report present a more accurate image of the market place, the listing allows price trends to be tracked more closely. Table 1.3 lists the average sales prices of homes sold each year from 1979 to 1983. The five-year and average annual price increases reinforce the perception that home ownership is becoming a more elusive objective for most families.

Table 1.3

AVERAGE HOUSING PRICES
Marin County and Cities, 1979-1983

	1979	1980	1981	1982	1983	5 Year % Increase	Average Annual % Increase
San Rafael	118,675	144,349	157,849	160,987	159,488	34.4	8.5
Novato	117,365	141,566	151,492	150,828	150,009	27.8	6.9
Mill Valley	159,335	193,627	212,357	201,632	199,935	25.5	6.4
San Anselmo	138,390	165,854	179,108	174,622	178,807	29.2	7.3
Larkspur	165,965	203,926	209,995	182,580	184,258	11.0	2.8
Corte Madera	126,820	156,942	162,441	160,426	163,832	29.2	7.3
Fairfax	114,915	130,483	142,482	137,727	136,039	18.4	4.6
Sausalito	176,835	214,614	211,384	243,842	207,245	17.2	4.3
Tiburon	238,865	283,354	334,900	304,904	325,178	36.1	9.0
Ross	244,185	295,577	325,069	371,933	416,700	70.6	17.7
Belvedere	366,130	317,561	531,375	625,833	652,636	78.2	19.5
Countywide	137,925	168,508	177,666	182,553	186,793	35.4	8.8

SOURCE: Marin County Board of Realtors, 1984

Incomes

There are many factors which contribute to high prices and rents, but one important factor needed to sustain high prices is high incomes. Not only does Marin have the highest median housing price in the Bay Area, it also has the highest median income. About 20% greater than the Bay Area median, the median household income in Marin is \$24,569. This is 5% greater than the median income in second-ranked Santa Clara. Table 1.4 lists the median household incomes for the Bay Area counties, region and state.

Table 1.4

ANNUAL MEDIAN HOUSEHOLD INCOME Bay Area Counties, 1979

MARIN	24,569
Santa Clara	23,370
San Mateo	23,175
Contra Costa	22,875
Solano	19,264
Napa	18,887
Alameda	18,700
Sonoma	17,734
 San Francisco	 15,867
Bay Area	20,607
California	18,248

SOURCE: U.S. Census of Population and Housing, 1980.

Occupations

A person's occupation is the primary determinant of his or her income. The relatively high incomes of Marin's residents are a reflection of their having occupations which pay relatively high salaries. Of the 116,800 employed people in Marin, a majority (53%) work in occupational categories known for paying relatively high salaries. About 18% of the labor force fill executive, administrative and managerial positions. By comparison, only 13%, of the region's total labor force fills these positions. The occupation with the highest percentage of Marin's workers is "professional speciality." This group includes some of the most well-paid positions in our economy, such as doctors, dentists, lawyers, and engineers. (It also includes other professional but not-so-well paying jobs such as teacher, author, photographer, and minister.) Twenty percent of Marin's residents are professional people compared to 14.6% of the Bay Area's workers. Individuals in sales comprise 15% of the labor force compared to 11% for the region. This is another category whose members may have widely-varying incomes. It includes insurance, real estate, and securities sales people as well as people in retail stores.

Table 1.5 lists the various occupations. The number and percentage of Marin's workers is shown but only the percentages appear for the Bay Area's and California's workers.

Table 1.5

OCCUPATIONS Marin County, Bay Area, California

	MARIN	MARIN Percentage	Bay Area Percentage	California Percentage
Executive, Admin., & Managerial	20,745	17.8	13.1	12.0
Professional Specialist	23,227	19.9	14.6	13.1
Technicians	3,494	3.0	4.2	3.3
Sales	17,653	15.1	10.9	10.8
Admin. Support	19,232	16.5	19.9	18.5
Private Household	908	.8	.6	.6
Protective Service	1,860	1.6	1.5	1.5
Other Service	10,849	9.3	10.1	10.5
Farming, Forests & Fishing	1,772	1.5	1.4	2.8
Precision Production, Light & Repair	10,498	8.4	11.5	12.3
Machine Operators, Assemblers & Inspectors	2,034	1.7	5.8	7.1
Transportation & Material Moving	2,008	1.7	3.2	3.6
Handlers & Laborers	2,580	2.2	3.3	3.8
TOTAL	116,810	100.0	100.0	100.0

SOURCE: U.S. Census of Population and Housing, 1980.

Education

One trait which greatly influences occupational choices as well as lifestyle choices is education. Generally, people with high levels of education, as measured by years of school completed, work in the better paying fields and have income to support their lifestyle choices. Corresponding to the high incomes in Marin is a highly educated population. Among persons aged 25 or over, a majority have had at least some college education. Thirty-eight percent have completed four or more years of college; over one-quarter have completed from one to three years of college. Marin differs especially from the Bay Area as a whole with its high percentage of college graduates. (One-quarter of the Bay Area's adults are college graduates). There is an even greater distinction when Marin is compared to the state. Table 1.6 lists the number and percentage of Marin's adults according to the years of schooling they have completed. Percentages only are shown for the Bay Area and state.

Table 1.6

EDUCATIONAL ATTAINMENT Marin County, Bay Area, California, 1980

(Persons Aged 25 Years or Over)

	MARIN	MARIN Percentage	Bay Area Percentage	California Percentage
Elementary	6,412	4.3	11.0	14.2
1-3 Years High School	8,721	5.8	10.4	12.3
4 Years High School	36,832	24.4	30.3	31.4
1-3 Years College	40,497	26.9	23.3	22.4
4+ Years College	<u>57,301</u>	<u>38.0</u>	<u>25.0</u>	<u>19.6</u>
TOTAL	149,763	100.0	100.0	100.0

SOURCE: U.S. Census of Population and Housing, 1980

GROWTH AND CHANGE

The recent changes in population, household composition and household size reflect demographic trends and lifestyle choices that will influence Marin for the next twenty years. For example, the long term decline in the birth rate and the slower rate of migration into the Bay Area region have prompted forecasts of relatively slow population growth in Marin for the next twenty years.

In the following paragraphs an examination of recent trends shows that Marin has been a rapidly changing county. Projections for population, households, employment, and the labor force offer a future image of Marin as a more slowly changing county.

Recent Trends

Population and Housing

During the past few decades, Marin, as well as the entire Bay Area, has been growing rapidly. Marin's population increased at a rate twice as fast as the Bay Area's during the 1950s and at a rate close to twice that of the Bay Area during the 1960s. Its share of the region's population rose from 3.2% to 4.5%. This rapid growth slowed during the 1970s, however. Marin's population increased by 7%, just over half of the Bay Area's growth rate. Marin's share of the region's population dropped slightly to 4.3%.

Housing for Marin's residents expanded at rates comparable with population growth during the 1950s and 1960s. But housing production did not slow nearly as rapidly as population growth during the 1970s. The number of units increased by 28%, four times the rate of population increase.

Table 2.1

POPULATION AND HOUSING GROWTH Marin County and Bay Area, 1950-1980

	MARIN	%Change	Bay Area	%Change	Marin's Share
POPULATION					
1950	85,619		2,681,322		3.2
1960	146,820	71.5	3,638,939	35.7	4.0
1970	208,150	41.8	4,630,311	27.2	4.5
1980	222,568	6.9	5,179,784	11.9	4.3
HOUSING					
1950	28,598		887,050		3.2
1960	49,581	73.4	1,259,277	42.0	3.9
1970	72,436	46.1	1,626,383	29.2	4.1
1980	92,649	27.9	2,061,343	26.7	4.5

SOURCE: U.S. Census of Population and Housing, 1950, 1960, 1970, 1980.

While growth per se exerts a great influence on an area, the type of people and their living arrangements lend much to the qualitative differences among Bay Area counties. Strong influences on housing consumption such as education, occupation, and income, were highlighted in the previous section. This section will feature other factors such as age, household size and household composition which influence the overall housing market within Marin.

Age

In recent decades two nationwide demographic trends have brought substantial change to social and economic life. The first is the birth and maturation of the "baby-boom generation", those people born between the years of 1946 and 1960. During the 1950s and 1960s this group was the most rapidly growing age segment of the population. In Marin, the number of pre-school children, persons aged five or under, increased by 87% between 1950 and 1960. Children of school age, 6 to 17 years, increased in number by 155%. During the following decade, the school-aged population continued to swell by another 51%. Between 1970 and 1980 the baby-boomers entered the household forming ages between 20 and 34. Now they are putting increasing pressure in the housing market. In their wake they have left empty schools and large, under-utilized houses built to accommodate them during their childhood.

A second major demographic trend has been the increasing longevity of elderly people. Life expectancy has risen more than five years since 1950, from 68.2 to 73.8 years. Although their numbers are small, the elderly are today the fastest-growing segment of the population. Between 1970 and 1980, there was a 42% increase in the number of persons aged 65 or over, five times the rate of increase of the total population. Although the number of all elderly is increasing rapidly, it is the oldest of the elderly whose numbers are growing the fastest. The number of persons aged 85 and over increased 68% during the last decade. There are over seven times as many octogenarians today as there were thirty years ago. Not only has longevity decreased the rate of intergenerational turnover of housing units, but it has also placed a greater demand on society to meet the specialized housing needs of the elderly.

Tables 2.2 and 2.3 trace the two demographic trends that have affected society in the last thirty years: the birth and maturation of the baby-boom generation and the rise of the elderly population. Table 2.2 lists the number and percentage of people in four familiar age groups, "pre-school children," "school-aged children," "adults," and "elderly." Table 2.3 shows the number and percentage of people in more narrowly defined age brackets called cohorts.

Table 2.2
AGE TRENDS
 Marin County, 1950 - 1980

	Number of People							Percentage Share of Total Population			
Age Group	1950	1960	% Change	1970	% Change	1980	% Change	1950	1960	1970	1980
Preschool (under 6)	10,469	19,566	86.9	19,112	-2.3	13,049	-31.7	12.2	13.3	9.3	5.9
School Aged (6 to 17)	12,258	31,308	155.4	47,181	50.7	36,996	-21.6	14.3	21.3	22.9	16.6
Adult (18 to 64)	56,596	85,760	51.5	124,561	45.2	151,010	21.2	66.1	58.4	60.5	67.9
Elderly (65+)	<u>6,296</u>	<u>10,186</u>	<u>61.8</u>	<u>15,184</u>	<u>49.1</u>	<u>21,513</u>	<u>41.7</u>	<u>7.4</u>	<u>6.9</u>	<u>7.4</u>	<u>9.7</u>
TOTAL	85,619	146,820	71.5	206,038	40.3	222,568	8.0	100.0	100.0	100.0	100.0

SOURCE: U.S. Census of Population and Housing, 1950, 1960, 1970, 1980.

Table 2.3
AGE TRENDS
Marin County 1950-1980

Age Cohort	Number of People							Percentage Share of Total Population			
	1950	1960	%Change	1970	%Change	1980	%Change	1950	1960	1970	1980
Under 5	9,018	16,335	81.1	15,497	-5.1	10,878	-29.8	10.5	11.2	7.5	4.9
5 to 9	6,766	15,398	127.6	19,587	27.2	12,169	-37.9	7.9	10.5	9.5	5.5
10 to 14	4,698	13,366	184.5	20,045	50.0	16,027	-21.0	5.5	9.1	9.7	7.2
15 to 19	4,307	8,668	101.3	16,825	94.1	17,437	3.6	5.0	5.9	8.2	7.8
20 to 24	6,770	7,992	18.1	15,039	88.2	16,396	9.0	7.9	5.4	7.3	7.4
25 to 29	8,070	10,232	26.8	16,652	62.7	20,615	23.8	9.4	7.0	8.1	9.3
30 to 34	8,182	11,958	46.2	15,140	26.6	24,416	61.3	9.6	8.1	7.4	11.0
35 to 44	14,632	24,635	68.4	28,757	16.7	35,245	22.6	17.1	16.8	14.0	15.8
45 to 54	10,077	17,461	73.3	26,326	51.8	25,776	-2.1	11.8	11.9	12.8	11.6
55 to 59	3,681	5,899	60.3	9,613	63.0	12,469	29.7	4.3	4.0	4.7	5.6
60 to 64	3,122	4,682	50.0	7,373	57.5	9,627	30.6	3.7	3.2	3.6	4.3
65 to 74	4,397	6,786	54.3	9,210	35.7	12,910	40.2	5.1	4.6	4.5	5.8
75 to 84	1,631	2,820	72.9	4,621	63.9	6,335	37.1	1.9	1.9	2.2	2.9
85+	268	580	116.4	1,353	133.3	2,268	67.6	0.3	0.4	0.7	1.0
TOTAL	85,619	146,820	71.5	206,038	40.3	222,568	8.0	100.0	100.0	100.0	100.0

SOURCE: U.S. Census of Population and Housing, 1950, 1960, 1970, 1980.

Household Composition

The composition of a household, be it a family, an individual, or a group of unrelated individuals, influences the type of housing desired. Each group has its own space and service needs which are reflected in the type of structure the household wishes to occupy. During the past thirty years there has been a shift in household composition. Generally, the trend has been towards one-person, "other-family" and non-family households and away from married-couple families.

The largest change in household characteristics occurred during the 1970's. The number of one-person households doubled to almost 24,000. They now comprise 27% of all households, up from 18% ten years ago. The number of non-family households nearly tripled during the past decade. They now comprise 10% of all households. Other family households, which include single parents or relatives living together, have increased 74% in number. They now comprise 12% of all households, compared to 9% in 1970.

While the number of one-person, other-family and non-family households increased substantially during the 1970s, the number of married couple families actually declined. As recently as 1960, married couples comprised three-quarters of all households in Marin. The percentage dropped to 68.5% in 1970, then to 51% in 1980.

The present composition of Marin's households is very similar to that of the entire Bay Area. Table 2.4 shows the changes in the composition of Marin's households from 1950 to 1980.

Table 2.4

TRENDS IN HOUSEHOLD COMPOSITION
Marin County 1950-1980

	Number and Percentage of Households							Percentage of Total Households			
	1950	1960	%Change	1970	%Change	1980	%Change	1950	1960	1970	1980
Single Person	3,069	5,906	92.4	11,991	103.0	23,810	98.6	12.2	13.4	17.7	26.8
Married Couples	18,615	33,424	79.6	46,333	38.6	45,286	-2.3	73.7	75.6	68.5	51.1
Other Family	2,465	3,462	40.4	6,065	75.2	10,552	74.0	9.8	7.8	9.0	11.9
Non-Family	<u>1,098</u>	<u>1,417</u>	<u>29.1</u>	<u>3,217</u>	<u>127.0</u>	<u>9,075</u>	<u>182.1</u>	<u>4.4</u>	<u>3.2</u>	<u>4.8</u>	<u>10.2</u>
TOTAL	25,247	44,209	75.1	67,606	52.9	88,723	31.2	100.0	100.0	100.0	100.0

SOURCE: U.S. Census of Population and Housing, 1950, 1960, 1970, 1980.

Household Size

The two demographic trends of recent decades, the birth and maturation of the baby-boom generation, and the increasing longevity of elderly people, combined with the changes in household composition, have precipitated a third major housing trend. The size of the average household is decreasing. From a high of 2.9 persons per household in 1960, the median household size has decreased to 2.2 persons.

Underlying the decrease in median household size was a change in the distribution of household sizes. The percentage of small households with one or two people has risen sharply while the percentage of larger sized households decreased. In Marin, the percentage of one- and two-person households increased from 44% in 1950 to 63% in 1980. Conversely, the percentage of households having three or more persons decreased from 56% to 37% during the same period.

The baby-boom contributed to an increase in household size during the 1950s but as the children reached adulthood, they left home, leaving behind a smaller household. Also, the increase of one-person and non-family households, which are smaller than family households, contributed significantly.

Table 2.5 traces the trend towards smaller households between 1950 and 1980. The percentage a given household size comprises of the total number of households is also listed.

Table 2.5
TRENDS IN HOUSEHOLD SIZE
Marin County, 1950-1980

Persons Per Household	Number and Percentage of Households							Percentage of Total Households			
	1950	1960	%Change	1970	%Change	1980	%Change	1950	1960	1970	1980
1	3,069	5,906	92.4	11,991	103.0	23,810	98.6	12.2	13.4	17.7	26.8
2	8,190	13,248	61.8	21,469	62.1	31,787	48.1	32.5	30.0	31.8	35.8
3	5,638	7,924	40.5	11,619	46.6	14,404	24.0	22.4	17.9	17.2	16.2
4	4,794	8,361	74.4	11,218	34.2	11,972	6.7	19.0	18.9	16.6	13.5
5	2,208	5,211	136.0	6,566	26.0	4,585	-30.2	8.8	11.8	9.7	5.2
6	<u>1,309</u>	<u>3,559</u>	<u>171.9</u>	<u>4,743</u>	<u>33.3</u>	<u>2,165</u>	<u>-54.4</u>	<u>5.2</u>	<u>8.1</u>	<u>7.0</u>	<u>2.4</u>
TOTAL	25,208	44,209	75.4	67,606	52.9	88,723	31.2	100.0	100.0	100.0	100.0
Median Size	2.7	2.9		2.5		2.2					

SOURCE: U.S. Census of Population and Housing, 1950, 1960, 1970, 1980.

Projections

In the previous section, a glimpse of recent trends showed some of the changes that have taken place. It is likely that some of the trends established during the previous two decades will continue through the next two decades. The degree of change is not expected to nearly so great, however.

This section shows projections for the next two decades between 1980 and 2000 for several important variables which influence the demand for housing: population, households, household size, employment, and persons in the labor force.

Population

Between 1980 and the year 2000, Marin's population is expected to increase 10% to 245,250. It will increase by less than half that (4.6%) during the 1980s. The Bay Area is expected to grow by 19% from 1980 to 2000. The result will be that Marin's share of the region's population will decrease to 4.0% from 1980's 4.3%.

Table 2.6

PROJECTED POPULATION Marin County and Cities, 1980-2000

	1980	1985	1990	1995	2000
San Rafael	57,177	57,100	58,700	59,800	60,900
Novato	51,209	54,500	58,200	62,400	66,300
Mill Valley	22,688	22,700	23,100	23,300	23,000
San Anselmo	14,420	14,700	14,500	14,300	14,000
Larkspur	20,852	21,200	21,700	22,100	21,800
Corte Madera	8,368	8,900	9,300	9,400	9,100
Fairfax	8,402	8,300	8,300	8,500	8,800
Sausalito	9,382	9,300	9,300	9,600	9,700
Tiburon	13,512	13,400	13,500	14,000	14,900
Ross	2,801	2,800	2,750	2,800	2,750
Belvedere	2,401	2,400	2,350	2,300	2,300
Remainder	<u>11,356</u>	<u>11,200</u>	<u>11,200</u>	<u>11,700</u>	<u>11,700</u>
TOTAL	222,568	226,500	232,900	240,200	245,250

SOURCE: Association of Bay Area Governments, Projections '83.

NOTE: Population figures for the cities include unincorporated areas in the cities' Urban Service Areas or Spheres of Influence.

Households

Between 1980 and 2000 the percentage increase in number of households will be greater than the percentage increase in population. In the year 2000, there will be 23% more households than exist today while the population will be 10% larger. In addition, the rate of household formation is expected to accelerate as we approach the year 2000.

The percentage increase in households will exceed the percentage increase in population due to the continuation of a long-established trend: the decrease of household size. Average household size, population divided by number of households, has declined since 1950. An average of 3.4 persons per household in 1950 dropped to 2.5 persons per household in 1980. Household size is expected to continue decreasing to an average of 2.2 persons per household by 2000. Table 2.7 lists the projected number of households for five-year intervals between 1980 and 2000. Table 2.8 lists the average household size corresponding to the household projections.

Table 2.7

PROJECTED NUMBER OF HOUSEHOLDS
Marin County and Cities, 1980-2000

	1980	1985	1990	1995	2000
San Rafael	23,108	23,660	25,030	26,520	28,170
Novato	17,962	19,100	21,050	23,730	26,290
Mill Valley	9,595	9,810	10,210	10,620	10,740
San Anselmo	5,874	5,950	6,040	6,100	6,130
Larkspur	8,060	8,340	8,810	9,070	9,210
Corte Madera	3,336	3,650	3,950	4,160	4,190
Fairfax	3,620	3,680	3,760	4,060	4,310
Sausalito	5,100	5,120	5,240	5,570	5,730
Tiburon	5,866	6,010	6,270	6,770	7,490
Ross	826	930	950	960	970
Belvedere	947	950	960	960	960
Remainder	<u>4,329</u>	<u>4,350</u>	<u>4,440</u>	<u>4,680</u>	<u>4,840</u>
TOTAL	88,723	91,550	96,710	103,200	109,030

SOURCE: Association of Bay Area Governments, Projections '83.

NOTE: Household projections for the cities include unincorporated areas in the cities' Urban Service Areas or Spheres of Influence.

Table 2.8

PROJECTED CHANGE IN AVERAGE HOUSEHOLD SIZE
Marin County and Cities, 1980-2000

	1980	1985	1990	1995	2000
San Rafael	2.5	2.4	2.3	2.3	2.2
Novato	2.9	2.9	2.8	2.6	2.5
Mill Valley	2.4	2.3	2.3	2.2	2.1
San Anselmo	2.5	2.5	2.4	2.3	2.3
Larkspur	2.6	2.5	2.5	2.4	2.4
Corte Madera	2.5	2.4	2.4	2.3	2.2
Fairfax	2.3	2.3	2.2	2.1	2.1
Sausalito	1.8	1.8	1.8	1.7	1.7
Tiburon	2.3	2.2	2.2	2.1	2.0
Ross	3.4	3.0	2.9	2.9	2.8
Belvedere	2.5	2.5	2.4	2.4	2.4
Remainder	2.6	2.6	2.5	2.5	2.4
Marin County	2.5	2.5	2.4	2.3	2.2

SOURCE: Average household size calculated from Tables 2.6 and 2.7.

NOTE: Household size figures for the cities include unincorporated areas in the cities' Urban Service Areas or Spheres of Influence.

Employment

In addition to increases in population and the number of households, the number of jobs in an area greatly influences the demand for housing. Generally, people like to live within a reasonable commuting time from their place of employment. Growth in the number of jobs available in Marin will impact the housing market by influencing the residential location choice of employees and by providing more income to the labor force.

Between 1980 and 2000 the number of jobs in Marin County is expected to grow at four times the rate of population increase. By the year 2000, the number of jobs is expected to be 42% larger than in 1980. Between 1980 and 1990 employment is expected to increase by 21%. In 1980, 2.9% of the Bay Area's jobs were located in Marin. By the year 2000, this percentage is expected to increase only slightly to 3%.

Table 2.9 lists the projected number of job available in Marin County in each of the five-year intervals between 1980 and 1990.

Table 2.9

PROJECTED NUMBER OF JOBS AVAILABLE Marin County and Cities, 1980-2000

	1980	1985	1990	1995	2000
San Rafael	32,458	37,100	39,600	41,800	45,100
Novato	12,293	14,500	18,000	21,200	24,600
Mill Valley	5,194	5,400	5,500	5,600	5,800
San Anselmo	2,198	2,400	2,400	2,500	2,700
Larkspur	9,465	10,200	10,700	11,000	11,500
Corte Madera	3,151	3,500	3,800	4,100	4,400
Fairfax	1,031	1,100	1,100	1,100	1,200
Sausalito	3,939	4,100	4,200	4,300	4,600
Tiburon	2,317	2,400	2,500	2,600	2,800
Ross	902	900	900	900	1,000
Belvedere	237	200	300	300	300
Remainder	<u>1,241</u>	<u>1,300</u>	<u>1,300</u>	<u>1,400</u>	<u>1,400</u>
TOTAL	74,426	83,100	90,300	96,800	105,400

SOURCE: Association of Bay Area Governments, Projections '83.

NOTE: Employment figures for the cities include unincorporated areas in the cities' Urban Service Areas or Spheres of Influence.

Labor Force

Accompanying increased employment opportunities is a projected increase in the labor force. In 1980, 55.4% of Marin's population was in the labor force. Because there were only 74,426 jobs for 123,350 workers, a large number of workers had to commute outside the county for work. In the future the relationship between the number and types of jobs available and the number and skill levels of workers will become increasingly important.

Between 1980 and 2000 the labor force of Marin County is expected to increase at a rate similar to the increase in the labor force of the Bay Area region. By 1990 the number of employed persons will have increased by 14%, or from 123,354 to 141,018 workers. By 2000, there will be an estimated 167,268 workers living in Marin. The rate of growth in the number of employed people living in Marin will exceed the population growth, indicating an increase in labor force participation rates. In 1980, 55% of Marin's residents were in the labor force. This percentage is expected to rise to 60.5% in 1990 and 68.2% by the year 2000.

Table 2.10

LABOR FORCE PROJECTIONS Marin County, 1980-2000

Year	Number of Employed Residents	Participation Rate
1980	123,354	55.4%
1985	132,655	58.6
1990	141,018	60.5
1995	156,135	65.0
2000	167,268	68.2

SOURCE: Association of Bay Area Governments, Projections '83.

Both the number of jobs available and the number of workers are projected to increase through the year 2000. But because the number of jobs and workers increase in corresponding amounts, there is expected to be a surplus of workers who must seek employment outside the county. There is expected to be at most only 64% as many jobs as workers. Commuting outside the county may be necessary for at least 36% of the population. To the extent that the jobs provided in Marin do not coincide with the skill levels of the labor force, nor provide the level of income necessary to obtain adequate housing, commuting both into and out of the county for work will increase. Increased traffic congestion is a likely outcome when the job market, labor pool, and housing market characteristics do not mesh.

HOUSING NEEDS

General Housing Needs

The Association of Bay Area Governments (ABAG) has produced on behalf of Marin County a listing of existing and projected housing needs. The time period for which the projections apply is the ten years between 1980 and 1990. In addition to total need, ABAG has specified the type of housing (eg. single family), tenure (owner or renter), and income level of the household. As required by state law, the following six factors were analyzed in determining needs:

- Market demand for housing
- Employment opportunities
- Availability of suitable sites and public facilities
- Commuting patterns
- Type and tenure of housing
- Housing needs of farm workers

Changes in vacancy rates, housing prices, and rents are used as indicators of market demand. Household formation, a major determinant of demand, was projected based on considerations of employment opportunities, the availability of suitable sites, and commuting patterns. Type and tenure were analyzed from 1970 and 1980 census data.

ABAG's intent was to at least preserve the 1980 percentages of housing types and the ratio of renters to owners. (Recent trends have been towards more single family detached homes which are owner-occupied. As a consequence there has been increased pressure on the rental housing market, especially for multifamily units.)

Existing Need

Before calculating projected housing needs, ABAG first determined whether there were existing unmet needs in Marin's housing supply. Existing need was defined as the short-fall between the actual number of vacant units in 1980 and the optimal number of vacant units. The optimal number was calculated from a combination of housing market factors specific to the community weighted by the regional goal of 4.5% of the housing stock being vacant at any point in time. Marin County fell short of the optimal vacancy rate in 1980. In addition, had the supply of housing been greater, there would have been more balance in the housing market. Price and rent increases would have more closely corresponded to increases in household incomes (instead, prices and rents rose much faster than household incomes). Had there been a greater supply of housing, consumers would theoretically have had a similar range of housing choices in 1980 as they did in 1970. There was an existing need for 2,101 more housing units.

Projected Need

Projected housing need is the number of units required to accommodate projected household growth between 1980 and 1990 plus additional units to provide an optimal vacancy rate. Table 3.1 lists the existing unmet need for 1980, and projected and total needs for 1990.

Table 3.1

GENERAL HOUSING NEEDS
Marin County and Cities, 1980-1990

Number of Housing Units

	Existing Unmet Need, 1980	Projected Need, 1990	Total Need, 1990
San Rafael	680	2,034	2,714
Novato	194	3,334	3,528
Mill Valley	156	760	916
San Anselmo	63	239	302
Larkspur	167	815	982
Corte Madera	149	609	758
Fairfax	53	153	206
Sausalito	51	162	213
Tiburon	130	500	630
Ross	72	0	72
Belvedere	34	8	42
Remainder	<u>349</u>	<u>na</u>	<u>155</u>
TOTAL	2,101	8,417	10,518

SOURCE: Association of Bay Area Governments, Regional Housing Needs Determinations, 1983.

Note: Existing housing need figures for the cities were calculated for incorporated areas within the city limits. Projected housing need figures for the cities include unincorporated areas in the cities' Urban Service Areas or Spheres of Influence. This accounts for the total need for the remainder being less than existing unmet need.

Type of Housing Needed

In the projection of housing need by type, ABAG assumed that the 1980 distribution would be maintained through the decade. Table 3.2 lists the total number of single family, multifamily, and mobile home units needed by 1990.

Table 3.2

HOUSING NEED BY TYPE Marin County and Cities, 1990

	Single Family	Multi Family	Mobile Homes
San Rafael	1,514	1,140	60
Novato	2,516	903	109
Mill Valley	663	252	1
San Anselmo	233	69	0
Larkspur	407	548	27
Corte Madera	584	174	0
Fairfax	149	57	0
Sausalito	96	112	5
Tiburon	445	185	0
Ross	65	7	0
Belvedere	36	6	0
Remainder	<u>122</u>	<u>31</u>	<u>2</u>
TOTAL	6,830	3,484	204

SOURCE: Association of Bay Area Governments, Regional Housing Needs Determinations, 1983.

Note: Housing Need figures for the cities include unincorporated areas in the cities' Urban Service Areas or Spheres of Influence.

Tenure

The projected need for owner-occupied and renter-occupied units appears in table 3.3. In arriving at these figures ABAG made the assumption that the present rate of loss of rental housing would not continue to decline but remain at least at the 1980 ratio of owner to rental units.

Table 3.3

HOUSING NEED BY TENURE Marin County and Cities, 1990

	Owner	Renter
San Rafael	1,457	1,257
Novato	2,141	1,387
Mill Valley	572	344
San Anselmo	195	107
Larkspur	439	543
Corte Madera	521	237
Fairfax	118	88
Sausalito	92	121
Tiburon	421	209
Ross	58	14
Belvedere	32	10
Remainder	103	52
TOTAL	6,149	4,369

SOURCE: Association of Bay Area Governments, Regional Housing Needs Determinations, 1983.

Note: Housing Need figures for the cities include unincorporated areas in the cities' Urban Service Areas or Spheres of Influence.

Household Income

In addition to housing type and tenure, local governments are required to consider the need for housing affordable to people at all income levels. To facilitate calculations of need, households were grouped into four income categories. These categories are the ones used by the federal Department of Housing and Urban Development to determine eligibility for federal housing assistance. The median income of the region is used as a benchmark from which the actual dollar incomes of the groups are derived. A household is considered **very low income** if it earns 50% or less of the Bay Area median income. A **low income** household earns 50% to 80% of the Bay Area median. A **moderate income** household is one with an income between 80% and 120% of the median. The remaining households are considered **above moderate**.

In determining need by income category, ABAG used the regional distribution of income groups as a basis for distributing units in each locality. With a goal of a more equitable distribution of housing opportunities throughout the region, ABAG projected needs presuming a movement towards the regional distribution of incomes in each locality. In the region, 23% of the households are very low income, 16% are low income, 21% are moderate income, and 40% are above moderate. The needs presented in Table 3.4 are derived by averaging the existing percentages of households in each category for a given city with the county and regional percentages. For example, the percentage of low income households in a given city, say 15%, is averaged with the percentage of low income households in the county, say 10%, and the region, say 16%, to derive a projected percentage for 1990: $15 + 10 + 16 = 41$; $41/3 = 14\%$. By 1990, this city should have at least 14% of its housing stock available to people with incomes between 50% and 80% of the Bay Area median.

Table 3.4

HOUSING NEED BY INCOME GROUP Marin County and Cities, 1990

Number of Housing Units

	Very Low	Low	Moderate	Above Moderate
San Rafael	570	407	543	1,194
Novato	635	529	706	1,658
Mill Valley	174	137	174	431
San Anselmo	60	48	60	134
Larkspur	187	147	196	452
Corte Madera	129	114	152	363
Fairfax	43	33	41	88
Sausalito	40	30	43	100
Tiburon	107	88	107	328
Ross	11	10	11	40
Belvedere	7	5	7	23
Remainder	<u>28</u>	<u>22</u>	<u>29</u>	<u>76</u>
TOTAL	1,991	1,570	2,069	4,887

SOURCE: Association of Bay Area Governments, Regional Housing Needs Determinations, 1983.

Note: Housing Need figures for the cities include unincorporated areas in the cities' Urban Service Areas or Spheres of Influence.

Special Housing Needs

Not only are local governments required to document existing and projected housing needs for the general population, but state law requires that the special housing needs of certain groups be considered also. Specifically, Marin County must address the needs of female-headed households, large families, the elderly, the handicapped, and farm workers.

Female Headed-Households

More than one-fourth of the County's households are headed by women. Of the 88,723 households reported in the 1980 Census, 25,452 (29%) are headed by women. Women who are heads of households may be living in three types of situations: alone, with their children or other relative, or with non-relatives. A majority (54%) of women who are living alone are over 60 years old. Table 3.5 shows the number and percentage of women-headed households in each of Marin's incorporated areas.

Table 3.5

HOUSEHOLDS HEADED BY WOMEN Marin County and Cities, 1980

	One-Person	Other Family	Non-Family	Total	Percent of Households
Unincorporated	2,792	2,169	908	5,869	25.2
San Rafael	3,327	1,718	769	5,814	31.0
Novato	1,648	1,510	416	3,574	23.1
Mill Valley	1,048	573	256	1,877	34.2
San Anselmo	935	483	260	1,678	32.9
Larkspur	1,424	396	279	2,099	38.7
Corte Madera	449	358	114	921	28.6
Fairfax	533	336	193	1,062	32.5
Sausalito	943	220	320	1,483	35.6
Tiburon	317	225	79	621	23.6
Ross	108	87	25	220	23.8
Belvedere	141	77	16	234	24.7
TOTAL	13,665	8,152	3,635	25,452	28.7

SOURCE: U.S. Census Population and Housing, 1980

A women's needs survey performed by the Commission on the Status of Women concluded that women as a group are an "economic underclass" in Marin County; many women are only "a divorce away from poverty." The study's findings included the following: the housing situation facing women-headed households is primarily a result of economic considerations. Both owner and rental units are extremely expensive relative to the low incomes earned by most women. As a group, working women suffer relatively low pay in jobs that are comparable to but less well compensated for than jobs held by men. Women recently divorced bear child care expenses in excess of the support payments, if

any, received from the father. Many recently divorced women who do not have young children lack the skills and confidence to gain an adequately paying job. Coupled with gender and age discrimination in the workplace, underemployment is a probable prospect. In its summary, the needs survey demonstrated that affordable living quarters of secure tenure was the primary housing problem. This in turn was a result of the lower economic status of women-headed households in Marin.

Needs of Women Who Rent

The needs assessment and social services agencies report the following problems for women in the rental housing market:

1. Rents are high compared to the incomes of households. Women must direct a large percentage of their income to rent.
2. Landlords have discriminated against women with children in various ways. High security deposits and density requirements are the most common. (A density requirement might be a limit of one person per bedroom. A mother with two children could not rent a two bedroom apartment.)
3. Some landlords may require higher security deposits and more stringent credit checks of women than of other households.
4. Landlord/tenant relations can be problematic, especially in the area of maintenance.
5. Eviction without just cause is perceived as a threat to secure tenure.

In responding to what could be done about these problems, women suggested landlord/tenant mediation services, limited rent increases, "just cause" eviction laws, and an increased supply of low-cost units.

Needs of Women Who Own Their Homes

Women who own their homes, either individually or jointly with their husbands, have relatively more security than renter households but do face problems unique to ownership.

1. Secure tenure is threatened by divorce. Often a divorcing couple will sell their house as part of a settlement. Women then face an expensive housing market.
2. Relatively lower incomes for women result in high percentages of their income being spent for mortgages, taxes, insurance and maintenance. These burdens are more severe for retired, elderly women living on fixed incomes.
3. Related to the income/housing expense issue is the probability that elderly women are often "trapped" in a house that is more than adequate for their needs because it would be economically irrational to move. An elderly person is not likely to have the cash flow to meet the high rents of an apartment. An elderly person could transfer the equity from one home to a smaller one, but high property taxes may be a deterrent.

Additional Housing Needs

Two additional needs for women-headed households are temporary emergency shelter and more community-oriented housing.

In recent years the demand for emergency housing has mushroomed. Clients include people recently evicted from their apartments, families new to the county who cannot find affordable shelter, victims of domestic violence who must escape their household, and people who lose their residence from fire or natural disasters. Also a new group is emerging in Marin, the chronically homeless. Often suffering mental or emotional disturbances, these people seek shelter in public places. The street is home for many.

Single mothers and the elderly experience isolation in a county whose social opportunities center around married-couple families. The burdens of childraising and the workplace limit the social life of single mothers. Recently divorced women experience this isolation most acutely. Many elderly women, especially those who live alone after their husbands have died, may also feel isolated. Limited mobility, due to inadequate transportation services and/or personal frailty, is a frequently expressed concern.

Women who have experienced these situations call for congregate housing. An example is an apartment or condominium complex in which single parents could share child-care and perhaps have space for a children's recreation/learning center. The elderly could use health and social services provided in a comparable complex.

Large Families

There are 6,750 families with five or more persons in Marin, 7.6% of all households. Large families are more likely to be homeowners than renters. Almost 10% of the households in owner-occupied units have five or more persons compared to only 4% in renter-occupied housing. Within the unincorporated area there are 1,974 large families, about 8.5% of households. Of these, 485 (17.4%) rent housing. Although there is no documented evidence, it is probable that a high percentage of the overcrowded units in Marin are occupied by large families. The 1980 Census reports 1,531 units with more than 1.01 persons per room, 1,002 of which are rented. A total of 6,963 persons live in overcrowded units, 4,222 of whom are renters.

The primary housing need of large families are units which are both large and affordable. Marin has an ample stock of large, single family housing units but they are very expensive to buy or rent. Of the 16,731 houses with four or more bedrooms, 14,551 are owner-occupied, but only 1,734 are renter occupied. A special 1980 Census print-out from the federal Department of Housing and Urban Development shows that 31% of the large families who rent spend more than 25% of their income for rent. Only 5.3% of large, owner-occupant families have incomes that low. Of the low income renters, 17% pay more than 25% of their income for housing. The primary need for large households who rent are affordable units with three or four bedrooms.

Elderly Households

There are 31,149 people aged 60 or over in Marin County, about 14% of the population. In recent decades the elderly population has been growing rapidly. For example, during the 1970s the elderly population increased five times faster than the total population.

In future decades the elderly will become the most rapidly growing segment of the population. Between 1980 and 1990, the elderly population is projected to increase by 30%, almost ten times the county's total growth rate of 3.5%. Between 1990 and the year 2000 the number of elderly persons is projected to increase 15%, about five times the total population increase. By the end of this decade, the elderly will comprise 17.5% of Marin's population, compared to 14% in 1980. By the year 2000 that percentage will have risen to 19.5%.

Table 3.6

THE ELDERLY POPULATION Marin County and Unincorporated Area, 1950-2000

Number of Persons Aged 60 and Above

Year	Total Marin	Percent Change	Unincorporated	Percent Change
RECENT TRENDS				
1950	9,418	--	3,367	
1960	14,868	58.9	4,452	32.2
1970	22,557	51.7	5,823	30.8
1980	31,140	38.1	7,565	29.9
PROJECTIONS				
1990	40,434	29.9	NOT AVAILABLE	
2000	46,578	15.2		
SOURCE: Trends: U.S. Census of Population and Housing, 1950, 1960, 1970, 1980. Projections: California Department of Finance, 1983.				

Living Arrangements of the Elderly

A majority of the elderly persons in Marin live with their spouses or other family members, usually their children. One quarter, however, live alone. Of those who live alone, over three quarters are women. A small minority live with non-relatives or in group quarters such as nursing home.

Table 3.7

LIVING ARRANGEMENTS OF THE ELDERLY
Marin County, 1980

Persons Aged 60 and Above

	Number	% of Elderly
Living Alone	7,386	23.7
Men	1,601	5.1
Women	5,785	18.6
With Spouse	18,752	60.2
With other relative	1,856	6.0
With non-relative	1,235	4.0
Group quarters	<u>1,911</u>	<u>6.4</u>
TOTAL	31,140	100.0

SOURCE: U.S. Census Population and Housing, 1980.

Housing Needs

The housing needs of the elderly are influenced by household income and health. While the median income for elderly family households is close to the countywide median, men and women who live alone or in non-family households have a relatively low median income. In a special census tabulation released by the Federal Department of Housing and Urban Development, 6,573 households, 44.6% of all elderly households, had incomes of less than 15,000, thus making them eligible for federal housing assistance. In addition, low-income elderly households were twice as likely to be living in substandard housing as higher-income households, although the percentages are very small. Among owner-occupants, 2% of low-income elderly households live in substandard housing compared to .9% of higher-income elderly households. Among renters, 2.5% of low income elderly households live in substandard units compared to 1.1% of the higher income elderly households.

The same census reported that 2,929 households headed by an elderly person 62 years old or over spend more than 25% of their income for rent. Within this group 88% of the households have low incomes. Table 3.8 list the number of elderly households, both owner- and renter-occupants, who live in standard or substandard housing. The households are further distinguished by low or high income.

Table 3.8

INCOME AND HOUSING UNIT CONDITION

Marin County, 1980

(Number and Percentage of Elderly Households)

Housing Condition	Lower Income		Higher Income		Total	
	#	%	#	%	#	%
<u>Owner Occupied</u>						
Substandard	63	2.0	63	.9	126	1.3
Standard	3,211	98.0	6,675	99.1	9,886	98.7
<u>Renter Occupied</u>						
Substandard	81	2.5	16	1.1	97	2.1
Standard	3,218	97.5	1,411	98.9	4,629	97.9
<u>Total</u>						
Substandard	144	2.2	79	1.0	223	1.5
Standard	6,429	97.8	8,086	99.0	14,515	98.5

SOURCE: 1980 Census, Department of Housing and Urban Development.

This information documents two important needs for elderly households: rental assistance which will allow them to remain in their apartment, and an increased supply of rental units affordable to lower-income elderly.

Elderly homeowners who do not have high incomes find themselves in a house-rich, cash-poor situation. Although their homes are often paid for (or require very low mortgage payments), their incomes may not provide adequate cash flow for routine housing maintenance or emergency expenditures, either medical or house-related. For these people, low-cost rehabilitation loans, home equity loans or annuities would be beneficial. An expanded supply of affordable, low-maintenance homes or apartments would allow those who wish to leave their homes to do so.

In addition to the lower incomes of many elderly households, health and disability concerns affect the quality of life experienced at home. Numerous surveys have shown that the elderly are very attached to their homes and would prefer to remain in them. Providing a sense of place, one's home is important for overall physical and psychological well-being. Making the home more functional is a significant need. Such relatively minor alterations as lowering kitchen cabinets, providing rails in the bathrooms, and removing architectural barriers (to allow wheelchair access) greatly improve day-to-day life. Assistance in financing these changes for lower income people is necessary.

As a person ages he or she becomes increasingly "at risk", more likely to suffer debilitating health problems or injury. The provision of health and social services becomes paramount. Traditionally these services have been situated in central locations. Transportation thus became critical. Often if transportation becomes too much of a problem, a person is forced to move to a nursing home or health center. By integrating service provision and housing, the elderly could have

a wider range of choices. For the person who wishes to stay at home, occasional or live-in nurses offer a solution. When the person requires institutional-level care, affordable residential facilities in or near the institution are most desirable. Integrating the range of services needed, from occasional-at-home to institutional, with housing is another need of the elderly.

Handicapped Persons

Persons who are physically, mentally, or developmentally disabled have housing needs that range from minor alterations of their existing house to total care in a specially-designed facility. Generally, people with physical handicaps require housing adapted to their condition of limited mobility. Adaptations include wheelchair ramps, wider doors, rails and other fixtures. Changes to existing housing, when possible, provides accessibility at moderate cost. New housing, specifically designed for a handicapped resident, can be more functional for the individual, but is more expensive. New housing should also be in a convenient location.

People with mental or emotional disabilities often require social services in conjunction with housing. The less disabled may function well in typical housing situations, using services on an out-patient basis. The more severely disabled may require specialized housing. The most common type in Marin is a group home in which several disabled individuals receive support from service providers who also live in the house.

The extent of housing needs of the handicapped has not been well documented. The 1980 Census reports a total of 8,608 persons between the ages of 16 and 64 who have a work disability. Of these, 4,395 are in the labor-force and 4,213 are not. The Census Bureau defines a work disability as a physical, mental or health condition that has lasted for more than six months. The Census also reports that 3,841 people are unable to use public transportation because of their disability. A majority, 67%, are aged 65 years or older. Table 3.10 lists the number and percentage of people with work disabilities. Table 3.11 lists the number and percentage of people with public transportation disabilities.

Table 3.9

PERSONS WITH WORK DISABILITY
Marin County and Cities, 1980

	In Labor Force	Not in Labor Force	Total
Unincorporated	1,206	1,069	2,275
San Rafael	1,104	1,032	2,136
Novato	683	1,015	1,698
Mill Valley	285	172	457
San Anselmo	294	209	503
Larkspur	199	167	366
Corte Madera	121	118	239
Fairfax	229	168	387
Sausalito	165	104	269
Tiburon	64	97	161
Ross	10	37	47
Belvedere	<u>35</u>	<u>25</u>	<u>60</u>
TOTAL	4,395	4,213	8,608

SOURCE: U.S Census of Population and Housing, 1980.

Table 3.10

PERSONS WITH A TRANSPORTATION DISABILITY
Marin County and Cities, 1980

	Age 16-64	Age 65 and Over	Total
Unincorporated	430	536	966
San Rafael	255	654	909
Novato	211	372	583
Mill Valley	76	251	327
San Anselmo	71	172	243
Larkspur	39	232	271
Corte Madera	38	68	106
Fairfax	78	103	181
Sausalito	30	51	81
Tiburon	22	98	120
Ross	10	18	28
Belvedere	<u>7</u>	<u>19</u>	<u>26</u>
TOTAL	1,267	2,574	3,841

SOURCE: U.S Census of Population and Housing, 1980.

Another indicator of need is provided by the Marin Center for Independent Living. The Center is a prime resource and referral service for handicapped people. During fiscal year 1983-84 the Center served an average of 74 clients monthly. A majority of clients received peer counseling and attendant services. An average of 2.3 clients a month inquired about housing assistance.

Farm Workers

Agricultural operations in Marin consist primarily of family-owned and operated ranches. Dairy and beef cattle, sheep, and horses comprise the stock. A few other farms provide feed and silage for the ranches.

The 1980 Census reports that 576 people live on farms in Marin County, over 80% of whom live as part of a married couple family. In addition, 35 people live in single-parent households and 59 live in non-family households. Of the 178 housing units, 98 (55%) are owner-occupied. All units have complete plumbing and heating facilities.

Farmworkers who are not family members either live on the farm year-round or commute from nearby communities. Ranch operations do not have the seasonal labor requirements of crop agriculture, and therefore do not use migrant farm workers. (The round-up of beef cattle is carried out by family members, each family helping the others in a cooperative effort.) Non-family workers who live on the farms are housed in a variety of ways. Some are in mobile homes or cottages. Others live in former bunkhouses converted to complete houses or in the house vacated by the family when they moved into a new house. For those people who pay rent, the median is \$123, about one-third of the countywide median. Some resident workers receive housing rent-free (the Census reports 32 such units).

Incomes of farmworkers compare to those of people living in urban areas. Households who own their homes have a median income of \$27,000. Households who rent have a median income of \$12,000. The median for single males is \$12,500. The Census does not report information on possible over-payment for housing. In general, families and individuals appear to be adequately housed.

HOUSING CONDITIONS

Affordability

The number one housing issue of the 1980s is affordability. In recent years prices and rents have been escalating more rapidly than incomes. The result is that households are allocating an increasing share of their income to housing. While all households suffer some net loss in quality of life, the impact is most severe for households with lower incomes. Also, households who rent their homes are not allowed the tax advantages available to people who purchase their homes.

The standard for affordability has been based on a "rule-of-thumb" used by state and federal housing programs for decades. A household which is spending 25% of its income for housing is spending an appropriate amount. If the household spends more than the 25% standard, it is considered to be paying an excessive amount. Recently however, the Federal Government has raised the payment standard to 30% of income for Section 8 rental assistance recipients. For home buyers, bankers are now allowing potential mortgagors to spend between 33% and 42% of their income for long-term debt. For purposes of the Housing Element, however, the State Office of Housing and Community Development requires using the 25% rule.

According to the 1980 Census, 36% of Marin's households spend more than 25% of their income for housing. Renters are twice as likely to be spending more than the standard than homeowners. Over one-half of all renters exceed the standard compared to 29% of homeowners. Households with low incomes are far more likely to be overspending than higher income households.

Renters

A majority of households who rent pay more than 25% of their income for rent. Among the poorest households, a much greater percentage spend more than one-quarter of their income for rent. Of households earning less than \$5,000 per year, 94% pay above standard. For those earning \$5,000 to \$10,000, 93% exceed the standard. In the next highest income category, \$10,000 to \$15,000, 81% of renters pay more than 25% of their income for housing. It is not until income exceeds \$15,000 per year that a majority do not pay above 25% for rent. In contrast to the lower income groups, among households earning more than \$20,000 per year, only 17% spend more than 25% of their income for rent.

To be eligible for participation in federal or state housing programs, a household's income should not exceed 80% of the area's median income. Over 12,000 households who rent in Marin County earn less than the federal guideline, 51% of all renters. Table 4.1 list the number and percentage of renter households which are paying greater than or less than 25% of their income for rent.

Table 4.1

OVERPAYMENT FOR HOUSING, RENTERS
Marin County, 1980

RENTER HOUSEHOLDS		Less than 25%		25% - 35%		35% or More	
		#	%	#	%	#	%
Low Income	5,000	194	5.9	154	4.7	2,929	89.4
	5-10,000	374	7.1	779	14.8	4,112	78.1
	10-15,000	1,127	18.8	2,160	35.9	2,722	45.3
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Above Low Income	15-20,000	2,569	51.5	1,532	25.3	1,951	32.2
	20,000+	<u>10,810</u>	<u>83.3</u>	<u>889</u>	<u>7.57</u>	<u>213</u>	<u>1.8</u>
	TOTAL	15,074	4634	5,514	17.0	11,927	36.7

SOURCE: U.S. Census of Population and Housing, 1980.

OVERPAYMENT FOR HOUSING, RENTERS
Unincorporated Area, 1980

RENTER HOUSEHOLDS:		Less than 25%		25 - 35%		35% or more	
		#	%	#	%	#	%
Low Income	5,000	67	10.2	38	5.8	554	84.0
	5-10,000	140	14.4	136	14.0	694	71.6
	10-15,000	255	23.2	245	22.3	601	54.5
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Above Low Income	15-20,000	399	40.6	335	34.1	248	25.3
	20,000+	<u>2,468</u>	<u>82.0</u>	<u>484</u>	<u>16.1</u>	<u>56</u>	<u>1.9</u>
	TOTAL	3,329	49.5	1,238	18.4	2,153	32.0

SOURCE: U.S. Census of Population and Housing, 1980.

Owners

Among households who own their home, only 29% spend more than 25% of their income for housing. Of those owners whose incomes are below 80% of the Bay Area median 3,739 pay more than the standard 25% of income of housing.

As would be expected, the poorest of the home-owning households are likely to spend more than the standard. Of those earning less than \$5,000 annually, 91% exceed the standard. In the \$5,000 to \$10,000 range, 61% of the households exceed the standard. Among households earning in the \$10,000 to \$15,000 range, a large minority, 46%, spend more than 25% of their income for housing.

Table 4.2

OVERPAYMENT FOR HOUSING, OWNERS
Marin County, 1980

OWNER OCCUPANTS		Less than 25%		25% - 35%		35% or More	
		#	%	#	%	#	%
Low Income	5,000	114	8.9	167	13.1	996	78.0
	5-10,000	787	38.6	262	12.8	992	48.6
	10-15,000	1,552	54.0	467	16.2	855	29.7
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Above Low Income	15-20,000	2,212	61.0	533	14.7	882	24.3
	20,000+	<u>25,608</u>	<u>78.6</u>	<u>4,096</u>	<u>12.6</u>	<u>2,896</u>	<u>8.9</u>
	TOTAL	30,273	71.4	5,525	13.0	6,621	15.6

SOURCE: U.S. Census of Population of Housing, 1980.

OVERPAYMENT FOR HOUSING, OWNERS
Unincorporated Area, 1980

OWNER HOUSEHOLDS:		Less than 25%		25 - 35%		35% or more	
		#	%	#	%	#	%
Low Income	5,000	27	8.6	48	15.3	238	76.1
	5-10,000	197	32.7	53	8.8	353	58.5
	10-15,000	415	47.3	161	18.4	301	34.3
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Above Low Income	15-20,000	728	62.0	195	16.6	252	21.4
	20,000+	<u>6,821</u>	<u>74.8</u>	<u>1,322</u>	<u>14.5</u>	<u>970</u>	<u>10.6</u>
	TOTAL	8,188	67.8	1,779	14.7	2,114	17.5

SOURCE: U.S. Census of Population and Housing, 1980.

Loss of Affordable Housing

Demolitions and Conversions

In the unincorporated area of the county, the only permits granted for demolition in recent years were to homeowners whose houses were destroyed during the January, 1982 storm. The Building Inspector does not expect any requests for demolitions between 1985 and 1990. Existing homes are regarded as too valuable to destroy and there is no planned redevelopment in unincorporated areas.

A few houses in the unincorporated areas of the county have been converted to non-residential uses, such as a day-care center. According to the Building Inspector there have been so few requests for conversions that their impact on the housing supply is negligible. The Planning Department anticipates less than ten conversions between 1985 and 1990.

Filtering Up

The primary loss of affordable housing results from the "filtering up" of units to families with higher incomes. Because all housing units in Marin command relatively high prices, and because of the relatively high mortgage interest rates charged today, it is not possible for a low- or moderate-income family to purchase a home. When a home owned by a low or moderate income family is sold, it is invariably sold to a family with a relatively high income.

The County is not able to estimate the extent of filtering up because the incomes of the sellers are not known.

Overcrowding

A housing unit is considered to be overcrowded when there is more than one person per room. Overcrowding is not very common in Marin. Less than 2% of all occupied housing units have more than one person per room. Rental units are almost three times as likely to be overcrowded than owner-occupied units; close to 3% of rental units are overcrowded, compared to 1% of owner-occupied units. A larger percentage of the people who rent are in overcrowded units as well. Close to 6% of renters live in an overcrowded unit compared to 2% of owner-occupants. A total of 3% of the County's population lives in units with more than one person per room. Table 4.3 shows the number and percentage of overcrowded units. Table 4.4 shows the number and percentage of people who are living in overcrowded units.

Table 4.3

OVERCROWDED HOUSING UNITS Marin County and Cities, 1980

	Total	%	Owner- Occupied	%	Renter Occupied	%
Unincorporated	494	2.1	191	2.4	298	1.9
San Rafael	364	1.9	75	.7	289	3.3
Novato	250	1.6	81	.4	169	2.1
Mill Valley	69	1.3	23	.7	51	2.5
San Anselmo	79	1.6	36	1.1	43	2.4
Larkspur	63	1.2	23	1.6	40	1.3
Corte Madera	43	1.3	18	.8	25	2.5
Fairfax	59	1.8	23	1.2	36	2.6
Sausalito	68	1.6	38	2.1	30	1.3
Tiburon	26	1.0	12	.7	14	1.3
Ross	14	1.5	8	1.0	6	3.5
Belvedere	<u>2</u>	<u>.2</u>	<u>1</u>	<u>.1</u>	<u>1</u>	<u>.4</u>
TOTAL	1,531	1.7	529	1.0	1,002	2.8

SOURCE: U.S. Census of Population and Housing, 1980.

Table 4.4

PERSONS IN OVERCROWDED UNITS
Marin Counties and Cities, 1980

	Total	%	Owner-Occupied	%	Renter-Occupied	%
Unincorporated	2,243	3.8	994	2.4	1,249	7.3
San Rafael	1,584	3.6	394	1.4	1,190	7.3
Novato	1,348	3.1	504	1.8	844	5.4
Mill Valley	314	2.5	88	1.0	226	5.6
San Anselmo	354	3.0	206	2.5	148	4.2
Larkspur	238	2.2	94	1.6	144	2.9
Corte Madera	214	2.7	101	1.7	113	5.2
Fairfax	249	3.4	125	2.7	124	4.4
Sausalito	239	3.3	141	4.0	98	2.6
Tiburon	111	1.7	62	1.3	49	2.8
Ross	55	2.0	57	1.2	28	7.2
Belvedere	14	.6	5	.6	9	2.0
TOTAL	6,963	3.2	2,741	1.9	4,222	5.8

SOURCE: U.S. Census of Population and Housing, 1980.

Vacant Housing Units

According to the 1980 Census and surveys by the Federal Home Loan Bank, Marin County and its cities have low vacancy rates. The Census reported that 1.9% of Marin's housing stock was vacant in 1980. Owner-occupied units had a lower rate, 1.5%, than renter-occupied units with 2.4%. Vacancy rates in the cities range from a low of 0.8% in Ross to 2.8% in Sausalito. Two percent of the units were vacant in the unincorporated area.

The Federal Home Loan Bank, in cooperation with the U.S. Postal Service, publishes annual statistics on vacant units by ZIP Codes. Mail carriers report the number of vacant units on their routes. The results from their 1980 survey were very similar to the Census survey. The September, 1983 survey shows lower vacancy rates. The rate for all units in the county was 1.4%. Single family houses were less likely to be vacant than multifamily units; 1.3% of the single family houses were vacant compared to 1.7% of multifamily units. Ross and Corte Madera had the lowest total vacancy rates, 0.4%. Larkspur had the highest rate, 2.4%.

Table 4.5 lists the number and percentage of vacant units including owner- and renter-occupied, from the 1980 Census. Table 4.6 lists the number and percentage of vacant single family and multifamily units by ZIP Code area.

Table 4.5

VACANT HOUSING UNITS
Marin County and Cities, 1980

(Number and Percentage of Units)

	Owner	%	Renter	%	Total	%
San Rafael	91	0.9	195	2.2	286	1.5
Novato	215	2.2	136	2.2	351	2.2
Mill Valley	39	1.1	37	1.8	76	1.4
San Anselmo	42	1.3	38	2.1	80	1.5
Larkspur	45	1.8	71	2.3	116	2.1
Corte Madera	25	1.1	21	2.0	46	1.4
Fairfax	37	1.9	47	3.3	84	2.5
Sausalito	22	1.2	100	4.1	122	2.8
Tiburon	24	1.3	11	1.2	35	1.3
Ross	5	0.7	2	1.1	7	0.8
Belvedere	9	1.2	6	2.6	15	1.6
Unincorporated	<u>252</u>	<u>1.6</u>	<u>217</u>	<u>2.7</u>	<u>469</u>	<u>2.0</u>
TOTAL	806	1.5	881	2.4	1,687	1.9

SOURCE: U.S. Census of Population and Housing, 1980

This table excludes houses "held for occasional use" or labeled "other vacant".

Table 4.6

VACANT HOUSING UNITS
Marin County and ZIP Code Areas, 1983

Zip Code	City	Single-Family(1)	%	Multi-Family	%	Total	%
94920	Belvedere-Tiburon	49	1.4	6	0.4	55	1.1
94925	Corte Madera	8	0.3	5	0.7	13	0.4
94939	Larkspur	24	1.7	50	2.8	74	2.4
94941	Mill Valley	151	1.7	4	0.2	155	1.4
94947	Novato	214	1.7	201	3.2	415	2.2
94930	Fairfax	60	2.2	15	1.6	75	2.1
94960	San Anselmo	30	0.6	0	0.0	30	0.5
94901	San Rafael	55	0.7	27	0.4	82	0.6
94903	San Rafael	82	1.2	121	4.7	203	2.1
94904	Ross	19	0.7	2	0.1	21	0.4
94965	Sausalito	<u>15</u>	<u>0.6</u>	<u>41</u>	<u>1.3</u>	<u>56</u>	<u>1.0</u>
TOTAL		707	1.3	472	1.7	1,179	1.4

SOURCE: Federal Home Loan Bank. Postal Survey, 1983

(1) Includes Mobile Homes

Tenure of Housing

Of the 88,723 occupied housing units in the county, 60% are owner occupied and 40% are renter-occupied. About two-thirds of the population lives in owner-occupied houses; the remaining one-third are renters. A majority of the housing units in all but two of the cities are also owner-occupied. Such units comprise from as many as 81% of the homes in Ross to as few as 43% in Sausalito. Just over 85% of the residents of Ross live in owner-occupied housing compared to 48% in Sausalito.

Table 4.7

TENURE Marin County and Cities, 1980

(Housing Units)

Cities	Owner	%	Renter	%	Total
Ross	755	81.5	171	18.5	926
Belvedere	718	75.8	229	24.2	947
Corte Madera	2,215	68.7	1,008	31.7	3,223
Tiburon	1,756	66.8	872	33.2	2,628
Unincorporated	15,454	66.3	7,844	33.7	23,298
San Anselmo	3,289	64.5	1,813	35.5	5,102
Mill Valley	3,435	62.5	2,058	37.5	5,493
Novato	9,399	60.7	6,094	39.3	15,493
Fairfax	1,874	57.3	1,397	42.7	3,271
San Rafael	10,079	53.7	8,678	46.3	18,757
Larkspur	2,423	44.7	2,997	55.3	5,420
Sausalito	1,799	43.2	2,366	56.8	4,165
TOTAL	53,196	60.0	35,527	40.0	88,723

(Persons)

Cities	Owner	%	Renter	%	Total
Ross	2,310	85.5	391	14.5	2,701
Belvedere	1,948	81.1	453	18.9	2,401
Tiburon	4,869	73.4	1,766	26.6	6,635
Corte Madera	5,877	72.9	2,186	27.1	8,063
Unincorporated	41,970	71.1	17,047	28.9	59,017
San Anselmo	8,384	70.2	3,558	29.8	11,942
Mill Valley	8,603	68.0	4,051	32.0	12,654
Novato	27,293	63.7	15,540	36.3	42,833
San Rafael	27,041	62.2	16,403	37.8	43,444
Fairfax	4,562	61.8	2,815	38.2	7,377
Larkspur	5,965	54.9	4,903	45.1	10,868
Sausalito	3,540	48.2	3,798	51.8	7,338
TOTAL	142,362	66.1	72,911	33.9	215,273

SOURCE: U.S. Census of Population and Housing, 1980.

Substandard Housing

The most recent survey of the condition of Marin County's housing stock was performed in 1971. Of the nearly 20,000 units included in the survey, 9.7% were considered substandard. The County has not had the funds to update the 1971 survey, nor does it have a mandatory resale inspection ordinance which would allow code violations to be documented. Today, the only reliable information on housing stock conditions comes from the 1980 Census. Two indicators used are the age of the unit and lack of complete plumbing facilities for exclusive use.

Housing Conditions Survey

In 1971 the County surveyed a sample of 19,593 housing units in 55 neighborhoods where the housing was known to have structural problems. Because of the sampling bias, the results of the survey are not applicable to the entire housing stock of the county or selected cities. A number of homes designated as substandard in the 1971 survey were built to be summer homes or cottages. Many of those were not brought up to building code standards when they were converted to year-round occupancy. Now, twelve years later, the County does not know how many of those homes have been upgraded. With these qualifications, here is the result of the 1971 survey:

Table 4.8

SUBSTANDARD HOUSING UNITS Marin County and Selected Cities, 1971

Cities	Units Surveyed	Percent Substandard
San Rafael	3,739	4.0
Novato	2,892	6.5
Mill Valley	384	15.5
San Anselmo	2,431	13.7
Larkspur	467	13.6
Corte Madera	830	2.8
Fairfax	2,825	6.2
Sausalito	1,298	11.6
Tiburon	427	7.7
Unincorporated	<u>4,300</u>	<u>14.4</u>
TOTAL	19,593	9.7

SOURCE: Housing Conditions Survey, Marin County Planning Department, 1971.

Age of Housing Units

Just over one-half of the housing units in Marin County are less than twenty years old. Over one-quarter of Marin's housing units were built during the building boom decade of the 1960s. Renter-occupied units as a whole are slightly newer than owner-occupied units; 54% of the renter-occupied units have been built since 1960, while 49% of the owner-occupied were built since then.

In general, age may serve as a reasonable indicator of housing stock conditions. Because building codes have become more strict over time, newer houses are of higher quality than older ones, especially in the areas of plumbing, wiring, and heating. But houses in Marin County command such a high price in the housing market that owners who can afford to maintain their houses have strong incentive to do so. Families who purchase homes needing repair usually do so in order to improve the unit's quality and protect their investment. Therefore one should exercise caution when drawing inferences from noting just the age of a housing unit. Table 4.10 lists the number and percentage of units according to several selected age categories.

Table 4.9

AGE OF HOUSING UNITS Marin County, 1980

Age in Years	Owner Occupied	%	Renter Occupied	%	TOTAL	%
1 or less	976	1.8	824	2.3	1,800	2.0
2 to 5	4,175	7.8	2,690	7.6	6,865	7.7
6 to 10	6,128	11.5	5,108	14.4	11,236	12.7
11 to 20	14,668	27.6	10,455	29.4	25,123	28.3
21 to 30	13,936	26.2	7,483	21.1	21,419	24.1
31 to 40	5,044	9.5	3,308	9.3	8,352	9.4
41 or over	<u>8,269</u>	<u>15.5</u>	<u>5,659</u>	<u>15.9</u>	<u>13,928</u>	<u>15.7</u>
TOTAL	53,196	100.0	35,527	100.0	88,723	100.0

SOURCE: U.S. Census of Population and Housing, 1980.

Housing With Inadequate Plumbing

According to the 1980 Census a very small percentage of Marin County's housing units lack complete plumbing facilities for exclusive use. Less than 1% of the total number of units have substandard plumbing. Renter-occupied units are twice as likely to lack adequate plumbing as owner occupied units. The percentage for both types are small however; 1.3% of the rental units lack adequate plumbing compared to .4% of the owner-occupied units.

Table 4.10

HOUSING UNITS LACKING PLUMBING Marin County and Cities, 1980

	Owner	%	Renter	%	Total(1)	%
San Rafael	21	0.2	170	2.0	197	1.0
Novato	5	0.0	43	0.7	49	0.3
Mill Valley	9	0.3	13	0.6	28	0.5
San Anselmo	6	0.2	30	1.7	39	0.7
Larkspur	8	0.3	19	0.6	29	0.5
Corte Madera	3	0.1	5	0.5	8	0.2
Fairfax	7	0.3	20	1.4	31	0.9
Sausalito	82	4.6	40	1.7	124	2.9
Tiburon	3	0.2	4	0.5	7	0.3
Ross	1	0.1	3	1.7	4	0.4
Belvedere	3	0.4	0	0.0	3	0.3
Unincorporated	<u>63</u>	<u>0.4</u>	<u>130</u>	<u>1.7</u>	<u>246</u>	<u>1.1</u>
TOTAL	211	0.4	477	1.3	765	0.9

SOURCE: U.S. Census of Population and Housing, 1980.

(1) Includes units "held for occasional use" or labeled "other vacant."

HOUSING PROGRAMS

Local Programs

Inclusionary Ordinance

The County has an ordinance, applicable to unincorporated areas only, which requires developers of projects of 15 or more units to make available one of the following:

1. 10% of the units priced to be affordable to low or moderate income households, or
2. 5% of the lots, in the case of land subdivisions, to the County for affordable housing, or
3. Money, in lieu of housing or lots, payable to the County's housing fund (currently \$46,500 per inclusionary unit or lot).

The developer may transfer the credit for inclusionary units from one site to another. The Housing Authority screens potential renters and home buyers. To ensure that inclusionary units remain affordable over time, the ordinance requires that "the price received by the seller of an inclusionary unit shall be limited to the purchase price plus an increase based on the Bay Area Consumer Price Index, an amount consistent with the increase in the median income since the date of purchase, or the fair market value, whichever is less." The resale price formula is now being reviewed and may be changed. Under the existing formula it is possible that the minimum allowable resale price may exceed the ability of a moderate income family to afford the unit. In lieu fees received by the County may be used in combination with funds from other sources for site acquisition and construction of affordable housing. Rental units are likely to be built because of the well documented need for them.

To date, 28 inclusionary units are planned for construction in new developments. Fees in-lieu of housing totaling \$325,000 will be paid to the County's housing fund. Prior to adoption of the ordinance, the County negotiated for 82 units affordable to low or moderate income families in five projects.

Density Bonus

When a housing developer agrees to construct at least 25% of the total units in a housing development for persons and families of low or moderate income, as defined in Section 50093 of the Health and Safety Code, or 10% of the total units for lower income households, as defined in Section 50079.5, the County will grant a density bonus of at least 25% over the otherwise maximum allowable density. The "maximum allowable density" is defined to mean the number of units permitted after a consideration of applicable Countywide Plan and Community Plan policies, as well as environmental, infrastructure and public services factors.

Below-Market-Rate Program

When a developer provides inclusionary housing units to a city or the County, the Housing Authority administers the sale of units to low and moderate income families by accepting applications from low and moderate income families who wish to purchase an inclusionary housing unit. After confirming that the family is within the income guidelines established by the inclusionary agreement between the city or the County and the developers, the Housing Authority refers the family to the developer. The units that developers provide for these families are usually smaller and contain fewer amenities than market-rate units in order to keep the prices affordable. The Housing Authority also monitors future sales of the units which have resale controls to ensure that they are priced to be affordable to low or moderate income families.

Mortgage Revenue Bonds

Authorized by federal and state law, the Redevelopment Agency and the County have sold tax-exempt bonds for the purpose of providing a loan pool for below market rate mortgages for first-time home buyers. Because the bonds were tax-exempt, the mortgage rates provided through the issue were several points below the market rate. For example, the most recent issue allowed a mortgage interest rate of 10.5% when market rates varied from 13% to 14%.

The first bonds were issued by the Redevelopment Agency in August, 1978. Proceeds from the sale provided a 7-7/8% interest rate on mortgages for 103 condominium units in Headlands I in Marin City (Marin City is a designated redevelopment area). Four of the units were priced to be affordable to moderate income households with no resale controls. The second bond issue in March, 1980 provided 10-3/4% mortgage financing for 108 units in Headlands II, also in Marin City. This time, 19 of the units were sold to low or moderate income families. The Housing Authority will monitor the future sale of these units.

In October of 1982 the Redevelopment Agency issued a third set of bonds for Lanham Village in Novato. A mortgage interest rate of 10.7% was available for 154 units. Section 235 federal mortgage assistance was matched with bond money to lower the interest rate still further for 82 of the families (These families earn less than 95% of the Bay Area median income).

Recently, the County of Marin made its first offering of \$22 million in tax-exempt bonds. This issue provided 10.5% financing for first-time home buyers. Families earning up to 150% of the Bay Area median income are allowed to participate. Table 5.1 lists the projects which have received mortgage assistance.

Table 5.1
MORTGAGE REVENUE BOND PROGRAM
Marin County and Cities

Project Name	Location	Total Units	Affordable Units
Headlands I	Marin City	103	0
Headlands II	Marin City	108	19
Lanham Village	Novato	154	82 (b)
Countywide Issue Total		284	127
Captains Cove	San Rafael	47	47 (c)
Casa Madera	Corte Madera	16	0
Mutual Owner-builder (a)	Corte Madera	60	54
Cherry Hill	Novato	3	0
Ignacio Place	Novato	8	1
McClay Road	Novato	1	0
Friedman/Jason (a)	Point Reyes	1	0
Skylark Meadows	Novato	37	19
Cedar Creek	Novato	15	6
Solar Court	Novato	13	0
Laurel Glen	San Rafael	30	0
TOTAL		649	234

(a) Owner-builder units.

(b) These families may earn up to 95% of the Bay Area median.

(c) All units priced at \$85,000, possibly affordable to moderate income families.

SOURCE: Marin County Housing Authority

Second Unit Ordinance

Second units are small studio or one bedroom apartments within a single family house or on the same lot. Not only are they a source of affordable housing, they are also provided at no cost to local government. Although second units have existed for many years, often in violation of local zoning ordinances, the County has recently passed an ordinance, applicable to unincorporated areas only, which allows second units in selected single-family residential neighborhoods. The ordinance is being implemented on a community by community basis through an amendment to the community plans. The applicant must obtain a use permit and certificate of registration; the unit must conform to the Uniform Building Code and other requirements deemed to be necessary after a study of the application.

As of January 1984, the Planning Department received applications for 15 second units. The department does not know how many unregistered second units exist.

Rebate for Marin Renters

A combination of local government and private foundation funds has provided rental assistance payments to low and moderate income families. Eligible families may receive reimbursement of up to 25% of their rent payments. Administered by the Housing Authority, Rebate for Marin Renters

offers advantages beyond the Federal Government's Section 8 Rental Assistance program:

- The assistance is based on the tenant's rent, not income
- The average annual assistance payment is lower
- Payments are made to the household, not the landlord
- Rent limits are 20% higher
- The housing unit quality standards are not as rigid
- Application and administration are much simpler
- Unrelated individuals are allowed to share a unit.

Currently, 104 families and individuals are receiving assistance. Among the households involved are 51 single parents, 17 married couples, 27 elderly individuals, 5 disabled individuals and 2 non-family households. A majority of recipients earn low incomes; 59 earn less than 50% of the Bay Area median income; 45 earn less than 80% of the Bay Area median.

The funds which initiated the program are almost depleted. The Housing Authority has applied for more private funds from the San Francisco Foundation. It is uncertain whether the program will continue because the Foundation grant requires matching funds from local governments. The Housing Authority is negotiating with local governments to allocate funds for the program.

Table 5.2 lists the number of households assisted by city and number of bedrooms in the unit. The number of bedrooms serves as an indicator of household size.

Table 5.2
REBATE FOR MARIN RENTERS
Marin County and Cities, 1983

City	Total Households	Studio	Number of Bedrooms			
			1 Br	2 Br	3 Br	4 Br
San Rafael	34	1	15	14	4	0
Novato	9	0	2	4	3	0
Mill Valley	13	0	9	3	1	0
San Anselmo	8	1	3	4	0	0
Larkspur	6	0	2	4	0	0
Corte Madera	1	0	2	6	2	1
Fairfax	11	0	2	6	2	1
Sausalito	4	0	3	1	0	0
Tiburon	0	0	0	0	0	0
Ross	0	0	0	0	0	0
Belvedere	3	0	1	2	0	0
Unincorporated	16	0	1	12	3	0
TOTAL	104	2	38	50	13	1

SOURCE: Marin County Housing Authority

Reverse Annuity Mortgages

Some elderly homeowners are caught in a house-rich, cash-poor situation; their pensions or social security payments do not provide an adequate income. The Reverse Annuity Mortgage (RAM) program allows an elderly homeowner to convert the equity in his or her house into a regular monthly income. Offered by the San Francisco Development Fund, a foundation-sponsored, non-profit corporation, RAMs provide several options for converting home equity to monthly income. Generally the program works best for elderly homeowners, aged 75 and above, who have substantial equity in their homes. Houses with good prospects for steady price appreciation ensure that adequate equity will remain after the loan is paid off. The program offers several different plans:

1. Simple Reverse Mortgage: The homeowner accepts a loan at a fixed interest rate for a specified term, usually ten years. The loan may be offered as a lump sum, monthly payments, or a combination of the two. Interest is charged to the homeowner on the balance of the loan as it is paid out, not on the total loan amount. At the end of the term the homeowner must pay back the loan plus interest. The homeowner retains title to the property.
2. Graduated Payment RAM: This is similar to the simple RAM except that the monthly payments increase by 6% each year.
3. Adjustable Reverse Mortgage: This plan is identical to the simple RAM for the first three years. Then the property is re-appraised and monthly payments, interest rate, and loan amount may be adjusted based on the new property value and a cost of living index. Two adjustments are allowed for a ten-year loan.
4. Sale and Leaseback: The owner sells his or her home to an investor, who may be a relative, at a discounted price. The investor purchases a lifetime annuity and leases the house back to the former owner for life. The investor assumes all responsibilities for the property; the elderly person pays a reasonable rent. Tax advantages and price appreciation accrue to the investor.

To date, 36 loans and 6 sale/leasebacks have been made in Marin.

Storm Damage Assistance

A \$1 million grant from the San Francisco Foundation provided grants and loans to families whose homes were lost or damaged during the January, 1982 storm. The grant was divided into three categories, each providing a different type of assistance. About \$400,000 was available for deferred payment rehabilitation loans. With a maximum amount of \$5,000 each, these loans provided a 4% interest rate and are due in 10 years or upon sale of the house, whichever comes first. Another \$200,000 was allocated for catastrophic grants. A family who lost their home could receive up to \$15,000 to be used to purchase another house or get re-established in a rental unit. An additional \$200,000 was used to write down the interest rate on conventional property improvement loans for qualified storm damage victims. A maximum of \$20,000 per loan at a rate between 10 and 12% helped those homeowners. Market interest rates were around 18% at the time.

The total grant has now been disbursed. A total of 78 deferred payment loans valued at \$392,795 have been made. When these loans are repaid, the funds will be recycled through the County's Residential Rehabilitation Loan Program for low income homeowners, administered by the Housing Authority. Twenty-four families received catastrophic grants totalling \$256,209. An additional thirty families received interest subsidy property improvement loans valued at \$448,372 from local lending institutions.

State Programs

State Deferred Payment Loan Program

Sponsored by the Office of Housing and Community Development, the State Deferred Loan Program made available rehabilitation loans for low and moderate income homeowners. The first allocation was in April, 1981. The Marin County Housing Authority received \$50,000. By combining the state allocation with CDBG funds allocated to the County's rehabilitation loan program, the Housing Authority was able to offer larger loan amounts than allowed under the CDBG program. (The CDBG limit was \$15,000.) More extensive work, such as adding a bedroom to an overcrowded house, was made possible.

A total of five loans were made by August, 1982. Marin did not receive any funds from a smaller, second allocation in 1982. The program has not been funded since then.

Federal Programs

Section 8 Rental Assistance

The program provides a cash payment to landlords who rent to qualified lower-income families. The tenants pay 30% of their income and the Federal Government pays the remainder up to a "fair market rent" determined by the Department of Housing and Urban Development. Section 8 allows a family great flexibility and choice in housing. The family may live in any place in which the landlord accepts Section 8 certificates, be it a new or existing unit. Section 8 also reaches the most needy of Marin's residents, those who earn less than 50% of the Bay Area median income.

The Housing Authority currently has 936 Section 8 certificates; 836 households are participating. The program is not utilized to the fullest extent because it is difficult to find landlords willing to accept low-income tenants at the rents required by HUD. Close to half of the program participants are families; just over one-third are elderly individuals. Section 8 is also a major resource for disabled persons.

Table 5.3

SECTION 8 RENTAL ASSISTANCE RECIPIENTS

Marin County and Cities, 1983

(Number of Households)

City	Total	Elderly	Household		Income	
			Disabled	Family	Very Low(1)	Low(2)
San Rafael	440	160	76	204	410	30
Novato	208	73	25	110	191	17
Mill Valley	24	8	3	13	23	1
San Anselmo	51	30	14	7	51	0
Larkspur	18	8	3	7	16	2
Corte Madera	13	6	2	5	12	1
Fairfax	30	6	7	17	27	3
Sausalito	3	2	0	1	3	0
Tiburon	11	3	0	8	10	1
Ross	0	0	0	0	0	0
Belvedere	1	1	0	0	1	0
Unincorporated	<u>37</u>	<u>6</u>	<u>7</u>	<u>24</u>	<u>36</u>	<u>1</u>
TOTAL	836	303	137	396	780	56

SOURCE: Marin County Housing Authority

(1) \$12,560 or less for a family of two

(2) \$20,240 or less for a family of two

Project Independence

Project Independence is a Section 8 rental assistance program for people who are physically, mentally or developmentally disabled. Using funds channeled through the State, the Marin County Housing Authority and Community Mental Health Services select and assist individuals who are capable of independent living. The program allows disabled persons to live together or with an attendant. All of the Section 8 regulations apply. Thirty households are currently receiving assistance.

Table 5.4

PROJECT INDEPENDENCE

City	Households
San Rafael	18
Novato	6
Mill Valley	1
San Anselmo	1
Larkspur	2
Sausalito	1
Unincorporated	<u>1</u>
TOTAL	30

SOURCE: Marin County Housing Authority

Section 8 Moderate Rehabilitation

In order to encourage landlords who rent to low or moderate income families to repair apartments in need of repair, the Section 8 Moderate Rehabilitation program provides rent supplements to the landlord. The supplements provide extra income for a 15-year period, effectively allowing the landlord to receive HUD-designated fair market rent if he or she is not already receiving it. Currently, 30 units are served by the Moderate Rehabilitation Program.

Table 5.5

SECTION 8 MODERATE REHABILITATION

City	Total Units	Number of Bedrooms			
		Studio	1 Br.	2 Br	3 Br
San Rafael	8	0	0	5	3
Novato	20	0	7	13	0
San Anselmo	1	0	0	1	0
Fairfax	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	30	1	7	19	3

SOURCE: Marin County Housing Authority

Public Housing Modernization

The Marin County Housing Authority receives capital funds from the Federal Government to improve and maintain apartments owned by the Housing Authority. During the last few years, extensive repairs and improvements have been made. They include new roofs, insulation and weatherization, landscaping, remodeled kitchens, storm sewers, and new appliances. Not only are the

apartments improved, but the program also provides employment and on-the-job training for eligible lower income persons. The Housing Authority owns and maintains the following apartments:

Table 5.6

PUBLIC HOUSING MODERNIZATION

Apartment	Number of Units	Type of Resident
Marin City	300	Families
Venetia Oaks	36	Elderly
Homestead Terrace	28	Elderly
Golden Hinde	40	Elderly
Casa Nova	40	Elderly
Kruger Pines	<u>56</u>	Elderly
TOTAL	500	

SOURCE: Marin County Housing Authority

Direct Loans for Elderly and Handicapped Housing

Section 202 of the Housing Act of 1959 provides low interest loans to private, non-profit housing sponsors. The loans finance the construction of rental or cooperatively owned units for elderly or handicapped persons. The interest rate charged is based on the rate paid on Federal obligations (eg. treasury notes) during the previous fiscal year. Section 8 rental assistance payments are available for all of the units, but tenants need not participate in the Section 8 program. Table 5.7 lists the projects which have received Section 202 assistance.

Table 5.7

SECTION 202 CONSTRUCTION LOANS

Apartment, Location	Number of Units
260 Camino Alto Court, Mill Valley	24
West Marin Ecumenical Senior Housing, Pt. Reyes	25
Parnow House, Santa Venetia	72
Bee Street, Sausalito	6
Buckelew Houses, Fairfax	12
626 Del Genado Road, San Rafael	12
TOTAL	151

SOURCE: Marin County Planning Department

Rehabilitation Loans

Section 312 of the Housing Act of 1964 provided low-interest, long-term loans to eligible homeowners for the purpose of rehabilitating their property. The home had to be located in an Urban Renewal, Urban Homesteading, or Code Enforcement area. In Marin, the only such area was Waldo Point, which was designated as a Code Enforcement area. Although the program was geared to low and moderate income homeowners, an applicant had to demonstrate the ability to pay back the loan and not be able to get comparable financing elsewhere. Only one homeowner received a loan among the several applicants from Waldo Point. HUD withdrew the Section 312 program from Marin shortly after that loan. No funds have been available to Marin since 1980.

Mortgage Insurance and Interest Subsidy for Homeowners

Section 235 of the National Housing Act allows HUD to provide mortgage insurance and monthly payments to lenders on behalf of low and moderate income homeowners. The subsidy payments allow mortgage interest rates to be as low as 8%. The homeowners must make monthly payments equal to 20% of their adjusted income in addition to at least a 3% down payment. The mortgage itself may not exceed \$47,500. The program is limited to families who earn less than 95% of the Bay Area median income. One further constraint is that the sale price of the unit must not exceed 125% of the mortgage limit, setting a maximum house price of about \$60,000.

The only Section 235 units are in Lanham Village in Novato. There are 82 families participating.

Community Development Block Grants

The CDBG program provides funds for a wide variety of housing, economic development, community facility, and public service projects. Each entitlement government may develop its own programs, but priority must be given to projects which benefit low and moderate income people. A formula determines the amount each government receives. Components of the formula include incidence of poverty, population, housing overcrowding, and age of housing units. Marin County will receive approximately \$1.8 million for fiscal year 1984.

The County has demonstrated its commitment to housing by earmarking half of its allocation to housing projects and services. Often, project sponsors will use CDBG funds as a "first piece" in a development package. They have been very successful in leveraging both public and private resources after a CDBG commitment has been made. Some of the many uses of CDBG funds include the following:

- Site acquisition for construction
- Building acquisition for conversion to housing
- Planning, design and engineering fees
- Infrastructure improvements
- Points for mortgage financing
- Rehabilitation of owner-occupied and multifamily housing
- Feasibility studies
- Housing counseling services, including equal opportunity enforcement.

In combination with other public and private funding sources, the CDBG program is the catalyst in Marin County's housing effort. Table 5.8 on the next page shows some of the projects assisted by CDBG funds.

Table 5.8

COMMUNITY DEVELOPMENT BLOCK GRANTS

Type of Project	Location	Units or Rooms	Recipient
Site Acquisition			
Lanham Village	Novato	154	Family, Owner
Skylark Meadows	Novato	37	Family, Owner
The Meadows	Novato	65	Family, Owner
Marion Park	Novato	168	Family, Rental
Rotary Manor	San Rafael	63	Elderly, Rental
San Rafael Commons	San Rafael	83	Elderly, Rental
Isabel Cook	San Anselmo	18	Family, Rental
Innovative Housing	Fairfax	36	Family, Rental
West Marin Senior Housing	Pt. Reyes Station	25	Elderly, Rental
Mutual Owner Builder	Pt. Reyes Station	10	Family, Owner
Building Acquisition and Rehabilitation			
Tam House	San Anselmo	11	Elderly, Rental
Briggin Home	San Rafael	4	Autistic Children
Horizon House	Unknown		
Innovative Housing	Larkspur	3	Family, Rental
MAWS Shelter		12	Women, Temporary
MAWS Second Step	San Rafael	10	Women, Temporary
Housing Center of Marin	San Rafael	12	Family, Temporary
Rehabilitation			
Residential Rehab Program	Countywide	30	Family, Owner
Mortgage Financing/Lease Payments			
Mutual Owner-Builder	Corte Madera	60	Family, Owner
Second Step (see above)			
Innovative Housing (see above)			
Skylark Meadows (see above)			
Feasibility Studies and Predevelopment Costs			
Owner-Builder Sites	Fairfax	14	Family, Owner
Potential Sites	Fairfax	6	Unknown
Potential Sites	San Anselmo	6	Unknown
Martin Luther King School	Sausalito	40	Unknown
Village Oduduwa	Marin City	25	Elderly, Rental
Bee Street	Sausalito	6	Elderly, Rental

SOURCE: Marin County Planning Department

Residential Rehabilitation Loan Program

Using Community Development Block Grant funds, the Marin County Housing Authority offers low interest property improvement loans to low and moderate income families who wish to repair their homes. To be eligible, families must earn less than 80% of the Bay Area median income and be willing to accept a lien on their home. Two types of loans are available, deferred and amortized.

Deferred loans, provided entirely by CDBG funds, carry a 4% interest rate and nominal monthly payment as low as \$5. The loan amount is due at maturity or when the house is sold, whichever comes first. The homeowners may be able to re-finance the loan when it is due.

Amortized loans involve a combination of CDBG and bank funds. They are a standard bank loan on which the recipient pays principal and interest. CDBG funds are used to write down the interest rate to between 4% and 10% or in some cases to provide collateral in the amount of the loan. The maximum loan amount through the rehabilitation program is \$15,000, and the maximum term is 15 years.

Table 5.9

RESIDENTIAL REHABILITATION LOANS

City	Applications	Loans Funded	Total Amount	Average Amount
San Rafael	39	20	\$221,545	\$11,077
Novato	42	16	194,000	12,125
Mill Valley	44	13	160,580	12,373
San Anselmo	69	20	237,479	11,874
Larkspur	23	5	65,000	13,000
Fairfax	34	12	153,586	12,799
Sausalito	9	2	51,600	25,800
Tiburon	3	2	28,000	14,000
Belvedere	2	1	13,400	13,400
Unincorporated	<u>185</u>	<u>67</u>	<u>804,500</u>	<u>12,007</u>
TOTAL	514	180	\$2,186,056	\$12,145

SOURCE: Marin County Housing Authority

NOTE: Program totals as of January 31, 1984. The average loan amount in Sausalito exceeded \$15,000 because funds were combined from another source.

Case Studies: Housing Projects

Rotary Manor (West End School), San Rafael

Rotary Manor is a 63-unit rental housing development in San Rafael for low-income elderly and handicapped people. It consists of the former West End School, converted into 15 apartments, plus two new buildings, each with 24 units.

The project was conceived, planned, developed, and sponsored by the San Rafael Rotary Club, whose members contributed cash, materials, and services to make the project feasible. The Rotary Club raised over \$120,000 in cash for planning, architecture, and other costs, and Club members provided materials and services such as lumber, hardware, heating equipment, cement work, roofing, and landscaping--some at no charge and some at cost.

Sources of Financing

In addition to the cash and in-kind support from the Rotary Club, other organizations contributed substantial resources to make the project feasible. The San Francisco Foundation provided a \$1.5 million loan at 8.5% interest with a 30-year term. The San Rafael Redevelopment Agency purchased the site from the San Rafael School District with \$570,000 in Community Development Block Grant funds and then sold it to the Rotary Club for \$1.

Public-Private Partnership

Rotary Manor is unique not only for the creative re-use of a school building and yard, but also because of the cooperation of several public agencies and private groups. The private contributions enabled the project to be affordable to low-income tenants without the standard government subsidies. Rents are guaranteed to remain at \$275 per month until at least 1986.

Isabel Cook Apartments, San Anselmo

A surplus school in San Anselmo provided another opportunity for a creative solution to Marin County's housing needs. The Housing Development Finance Corporation, (HDFC), an affiliate of the Housing Authority, developed 18 rental units for the elderly, disabled, and families. After demolishing several supplementary classrooms located behind the main school building, HDFC used the foundation to construct two units for the elderly, two units for the disabled, six two-bedroom family units and eight three-bedroom family units. The Housing Authority owns and manages the apartments.

Source of Financing

Marin County allocated \$393,145 in Community Development Block Grant funds to the Town of San Anselmo to purchase the school from the San Anselmo School District. (Additional CDBG funds were provided to convert the main building into a community center.) The San Francisco Foundation offered a \$275,000 grant for construction costs. California Rental Housing Construction Program, administered by the State Office of Housing and Community Development, provided an \$810,000 zero-interest loan, due in thirty years.

Inter-Agency Cooperation

The Town of San Anselmo provided leadership in developing the project. It purchased the school and transferred the property to HDFC, and sponsored a referendum, required by Article 34 of the State Constitution, for voter approval. The County, San Francisco Foundation, and Housing and Community Development cooperatively provided the necessary funds. After receiving title to the property from HDFC, the Housing Authority now manages the apartments.

Lanham Village, Novato

Lanham Village is 154 unit condominium complex located on Hamilton Air Force Base in Novato. The units were formerly officer's housing built in 1941. The Air Force declared the property surplus in 1974 and transferred title to the Federal Department of Housing and Urban Development. The houses remained vacant until the Marin County Redevelopment Agency acquired the property from HUD. The Redevelopment Agency then sold the property to Ecumenical Association for Housing (EAH), a non-profit housing developer. EAH rehabilitated the units before converting them to condominiums.

Sources of Financing

Marin County offered \$200,000 of Community Development Block Grant funds to assist purchase of site. The federal Department of Housing and Urban Development provided FHA mortgage insurance on all units plus Section 235 mortgage interest subsidies to 82 of the units. A construction loan of \$8 million was made to EAH by the First Interstate Mortgage Company. First Interstate also originated and serviced the mortgages loans. The Redevelopment Agency created a pool of money for mortgages by issueing \$9.3 million of tax-exempt bonds. Down payments for potential homeowners were assisted by \$907,000 grant from the San Francisco Foundation.

Making Home Ownership Affordable:

In a county of very high home prices, making home ownership affordable requires a substantial amount of financial assistance from a variety of sources. In addition to the direct contributions list above, two indirect contributions from the federal government helped keep the project affordable. The Redevelopment Agency acquired the site at a price substantially lower than the General Services Administration could have received had GSA chosen to sell the property for commercial uses. The treasury helped keep financing costs low by allowing the tax-exempt bonds. In addition to granting the required approvals, the City of Novato participated by assigning its bond financing allocation to the Redevelopment Agency.

Tam House, San Anselmo

Tam House represents a unique approach in housing for elderly persons. The Ross Valley Ecumenical Housing Association acquired and remodeled a single-family house to provide a shared living environment for ten elderly people. Each person has his or her own bedroom and lavatory, but shares the living room, kitchen, and laundry. Two or three persons share a bathroom. For a monthly rent of \$375 Ross Valley EAH also provides breakfast and dinner. Not only is the house located near shopping and transportation near downtown San Anselmo, but the house and one bathroom are also wheelchair accessible.

Sources of Financing:

Marin County allocated \$264,400 in Community Development Block Grant funds to acquire and remodel the house. The San Francisco Foundation donated \$166,200 for remodeling the main house and construction of an addition.

An Innovative Approach to Housing:

Tam House is an innovative approach to housing for elderly persons. Unlike an apartment complex, the single structure provides a more home-like atmosphere with many opportunities for personal interaction. The meal service is an added bonus.

ENERGY CONSERVATION

The fourth of four goals in the Marin Countywide Plan calls for the County to "achieve a sustainable energy future ... by reducing total energy demand and by replacing total dependence on imported, non-renewable energy resources with reliance on local, renewable energy resources." The plan went on to specify a quantified objective: "reduce total non-renewable, primary energy use in the county to 50% of current use by the year 2000."

According to a 1978 survey, the residential sector consumed 13 trillion BTU's of energy, 38% of the county's total energy consumption (13 trillion BTU's are contained in 103 million gallons of gasoline). The objective is to reduce this consumption by half to 6 trillion BTU's annually by the year 2000. If this objective is obtained, residential uses will account for 35% of the county's total energy consumption.

The energy element of the Countywide Plan states policies and implementation measures designed to encourage conservation and a shift to renewable energy resources. In establishing a positive role for local government, the plan offers the following reasons for involvement:

1. Local government controls land use patterns and building type and construction.
2. Local government is closer to the people and can facilitate behavioral changes.
3. Local government deals with the characteristics of its particular environment and can identify specific solutions to the energy problem that respond to local needs.

The fundamental responsibility of the County is to inform and assist residents in their efforts to increase energy efficiency. A second responsibility is to facilitate energy efficiency by removing institutional barriers. In assuming an active stance, the County has adopted several ordinances.

Ordinances

Solar Access

The County has adopted a solar access ordinance which implements the state Solar Rights Act of 1978. The Solar Rights Act includes the following provisions:

1. It prohibits local ordinances or regulations which restrict the installation of solar energy systems.
2. It requires that tentative subdivision maps provide for natural heating and cooling opportunities to the extent feasible.
3. It allows local governments to adopt an ordinance requiring the dedication of easement for solar access as a condition of subdivision approval.
4. It makes void any restriction in a private property contract which restricts the installation or use of solar energy systems.

The County's ordinance calls for solar orientation of all structures in a subdivision unless certain conditions exist which render such orientation infeasible. Orientation issues are settled at the tentative map stage of the

approval process. The ordinance also allows for solar easements to ensure that solar energy collectors or structural design features have access to sunlight for specified periods of time.

Energy Audits

The County also adopted an ordinance which required an energy audit of houses for sale. It was implemented on a trial basis for one year. At the end of the trial period the ordinance was repealed. Currently, an energy audit is a voluntary action undertaken by the individuals involved in the transaction. The County provides information on conservation and energy efficiency measures.

Programs

Home Weatherization

In cooperation with Pacific Gas and Electric Company, the County published a guide explaining how homeowners could save money by installing simple energy conservation measures. The easy-to-read, well-illustrated booklet recommended a number of cost-effective improvements which handy homeowners could do themselves. Among the suggestions were caulking exterior fixtures, weatherstripping windows and doors, insulating attics, heat ducts and hot water heaters, installing low-flow showerheads, and covering pools and hot tubs.

Using funds from the federal departments of Energy and Health and Human Services, and the San Francisco Foundation, Marin Citizens for Energy Planning installs energy-saving features for qualified homeowners. MCEP serves low income homeowners who might not otherwise be able to implement all the energy-saving measures MCEP recommends.

Housewarming Project

Using San Francisco Foundation funds, the County contracted with the Marin Conservation Corps who trained community volunteers and employed young people to weatherize homes. Many of the energy conservation measures implemented were those published in the booklet, A Do-it-Yourself Guide to Weatherization in Marin County. A demonstration project in the San Geronimo Valley resulted in the weatherization of 90 homes and two schools. A second grant resulted in the weatherization of an additional 150 homes.

Voluntary Point System

In cooperation with the Board of Realtors, the County received a demonstration grant to develop a voluntary home energy rating system. Using the checklist, a prospective homebuyer will be able to determine how energy efficient a house is. The point system will be developed under the auspices of the California Energy Commission.

Rehabilitation Loans

The Housing Authority encourages energy conservation measures via the residential rehabilitation loan programs. Low interest loans enable low-income homeowners to install insulation, weatherstripping, and energy-conserving heating systems as part of the rehabilitation package.

CONSTRAINTS

State law requires local governments to document constraints upon the maintenance, improvement, or development of housing. Included in this section will be both governmentally-imposed and market constraints.

Governmental Constraints

Proposition 13

A citizens' initiative, passed in 1978, Proposition 13 limits the property tax of residential units to 1% of market value. Units existing at the time of the proposition had their tax assessment rolled back to the 1975 assessed value. There have been many repercussions for local government in the years following this measure, primarily service and program cutbacks.

A broad effect on the economy has been a shift in the marginal costs of growth to new development and new residents. Owners and renters of housing built after 1978 are paying a higher proportion of the total economic costs of their units than are people who purchased prior to 1978. Examples of additional costs include the following:

- a. Differential Taxation: Because housing is assessed at its market value at the time of sale, homeowners with comparable houses in the same neighborhood may be paying different amounts of property tax. A house that has not changed ownership since 1978 would be assessed at its 1978 value, say \$60,000. The owner would be paying a maximum of \$662 in 1983 in property taxes. If a comparable house changed hands in 1983, a probable selling price of \$180,000 would result in taxes of \$1,800 in 1983.

Differential taxation provides a strong disincentive for elderly people to leave their large, underutilized houses. The increased cash-flow burden of taxes on a new, smaller home may place an unacceptable burden on their often limited incomes.

- b. Permit and Plan Approval Fees: With local government revenues curtailed, the cost of processing building permits, master plans, and other documents has been shifted to developers and home owners. The Marin County Planning Department sets its fees to recover 60% of the costs of permit processing. For many years, Building Inspection has had its fees set to fully recover costs. The fee schedule set by the Board of Supervisors is in Appendix E.
- c. Water and Sewer Hook-Up Fees: Large one-time fees are assessed for water and sewer hook-up to help defray capital expenses.
- d. Traffic Mitigation Fees: With reduced government funding for street and highway improvements, municipalities are now assessing developers extra fees to be used for upgrading traffic-related facilities (e.g. adding a lane to a highway).
- e. Reduced Housing Assistance: Local governments now have little capability to financially assist housing developments for low and moderate

income families. For example, a local rental assistance program, Rebate for Marin Renters, may be discontinued because the San Francisco Foundation grant requires matching funds from local governments.

Development Standards

With increased concern for ecologically sensitive development, energy conservation and high quality housing, the state has passed a number of laws which have the effect of raising the costs of new construction. These costs are passed on to the consumer via increased prices and rents. Implementing the laws has resulted in a longer project review process and a greater possibility of numerous restrictions being placed on the project. Generally the restrictions result in lower density and higher prices. (The project review process is described in the following chapter.)

California Environmental Quality Act (CEQA)

With the intent of promoting environmentally sensitive development, the state legislature has required that new development and changes in existing land uses be subject to environmental review. By restricting the supply of buildable land and increasing the length and complexity of the permit approval process, environmental regulations increase the cost of developing housing. Of course, this increased cost should be weighed against the benefits of the regulations. In many cases the regulations are clearly cost-effective. For example, if they prevent construction in flood zones or on unstable soil, the future savings clearly outweigh the cost of regulation. But at the other extreme, environmental regulations can impose unnecessary delays and additional costs on environmentally sound projects. The public hearing process, which may be very time-consuming for controversial projects, results in delays and the likelihood of greater restrictions placed upon the developer.

Article 34

Part of the State Constitution, Article 34 requires that housing projects sponsored by a public body be approved by a majority of the residents in the jurisdiction. Unpopularity of some publicly-sponsored projects resulted in their being denied via referendum. (In Marin, however, more have been approved than denied.)

Reduced Federal Support

The most significant constraint to providing affordable housing is the declining amount of federal funds for housing. Popular programs which have long been mainstays of the federal housing effort are either being eliminated or cut back. Federal policy is shifting from an emphasis on "deep subsidies" for new construction to "shallow" subsidies for existing housing.

In an era in which a variety of factors have pushed the cost of housing beyond the reach of low- to moderate-income families, cutbacks in State and Federal programs and anti-development actions by citizens have severely limited the ability of local government to assist people who need it most.

Market Constraints

Expensive land

The relatively scarcity of buildable parcels, especially in southern Marin, coupled with the great demand for sites, has driven prices to very high levels. Land is not only expensive in absolute terms, it has also become a much higher percentage of the total price of new construction. The price differential between new homes in Marin and that of other suburban counties can be explained by the price differential of raw land and site preparation.

Expensive Site Preparation

As most urban areas approach build-out (all available parcels built upon), site preparation costs rise dramatically. These remaining parcels have expensive-to-overcome natural constraints such as steep slopes, unstable soils, or propensity to flooding.

High and Unstable Interest Rates

Both builders and homebuyers have suffered high interest rates in the last few years. In anticipation of renewed inflation, lenders have kept long-term mortgage interest rates between 12.5% and 13.5% at a time when inflation is increasing at 3% to 5% per year. A few percentage points on a thirty-year mortgage translates into hundreds of dollars of annual interest payments for a family, often the difference between buying or not.

Filtering Up

Filtering up is the term which describes the process of increasingly affluent families occupying a house during its usable life. Filtering up characterizes the history of Marin's housing market.

Traditionally, as a family's income rises, the family chooses to move to a more expensive house, selling their existing house to a less affluent family, less affluent because a used house traditionally does not command as high a price as a comparable new one. The process of passing a house to families of ever lower incomes is filtering.

Marin, however, is considered such a desirable place to live that families are willing to pay increasingly higher prices to live here. In today's market, a house is more likely to be sold to a family whose income is higher than that of the existing resident's. A Marin house "filters up" to ever more affluent families during its usable life.

THE COUNTYWIDE PLAN AND LAND USE

The goals and policies of the Countywide Plan are designed to achieve a high quality urban environment within a minimally altered natural environment. Urban communities, located primarily along Highway 101 in the eastern portion of the county, are to provide a balance of housing, employment, cultural and recreational opportunities. The inland agricultural corridor is to be the locus of Marin's extensive dairy and livestock operations. Open space, recreational areas and small villages compliment agriculture in this part of the county. The Coastal Recreational corridor consists primarily of publicly owned open space, agricultural operations and villages. The zoning and development policies adopted by the County are designed to encourage the land uses appropriate to these three distinct areas of the county.

Through the Countywide Plan and Urban Service Area policies, the County has defined the proper role of city and County governments and created land use controls which implement the policies. Cities are to be the primary providers of urban services. Development within and adjacent to cities should be of sufficient intensity to ensure the cost-effective provision of services. The County is primarily responsible for managing the inland rural and coastal recreation corridors. Development intensity is to be low in order to protect existing agricultural and recreational/open space uses. Unincorporated villages are to retain their rural or semi-rural character by remaining geographically small with low density development.

To implement these policies, the County has zoned land within its jurisdiction at relatively low densities. Agricultural areas contain zones with an allowable density as low as one unit per sixty acres. In the urban corridor the County has zoned land adjacent to cities at semi-rural densities. This is to discourage developers from developing under the County's jurisdiction and encourage them to annex the property to the nearby city. City zoning regulations allow for more intensive development, reflecting the surrounding land uses. If the parcel is not to be annexed, the County still offers the city "first right of review." The parcel may be rezoned and developed at urban levels of intensity and included in the city's Urban Service Area.

In addition to the Urban Service Area policy, the County also encourages ecologically sensitive development by using flexible zoning classifications such as the planned district. Through the use of the Master Plan, a developer may maximize the development potential of environmentally sensitive parcels. A common means of maximizing potential is for the County to allow clustered development upon the buildable portion(s) of the parcel and leave areas with flood hazards, steep slopes or unstable soils undisturbed. Although most planned districts within unincorporated areas are zoned for low density development, when cities exercise their first right of review the density may be increased.

THE PROJECT REVIEW PROCESS

Stage One: Receipt of Application

When the Planning Department receives an application, it first checks for completeness. There must be enough material presented so that decision-makers and the public have a clear understanding of the applicant's intentions. Conceptual plans such as a Master Plan require less detail initially than a Design Review or Tentative Subdivision Map. Within thirty (30) days the Department must notify the applicant of the completeness of the materials submitted. Within one year, the County is required to make a decision on the application (under County Ordinances, some projects must be decided upon before one year has elapsed).

Stage Two: Environmental Review

As required by the California Environmental Quality Act, the environmental review must examine the impacts of the proposed project. Environmental documents are intended to outline the significant impacts, and their potential mitigation, and evaluate development alternatives and their impacts. The documents range in detail from a Negative Declaration of Environmental Impact up to a full Environmental Impact Report.

Within forty-five (45) days of accepting an application as complete, the Environmental Coordinator shall determine the level review required. If a Negative Declaration or mitigated Negative Declaration is recommended, then the project is scheduled for a decision. Planning staff sends out public notices and prepares a staff report which describes the project, the issues and recommended actions. If additional environmental work is necessary (Expanded Initial Study, Environmental Impact Report), the County contracts with a consultant to prepare the report. Copies of the report are then circulated for public review and comment.

The environmental review is considered at a public hearing by those taking action on the project: Deputy Zoning Administrator, the Planning Commission, and/or Board of Supervisors. Where action on a project is taken by Planning staff, a Negative Declaration may be approved without a public hearing based on public notice, comment and review.

Some minor projects such as an addition to an existing house or the construction of a single house on an existing lot, are exempt from environmental review by state law. Also if a project has already been reviewed, later plan reviews do not require environmental review, unless there is a change in the nature of the project.

Stage Three: Considering the Merits of the Project

After the environmental review has been completed, the project is reviewed at noticed public hearings (some types of minor projects may be reviewed by Planning staff without a public hearing). At public hearings, individuals and agencies may speak in support, opposition or about desired conditions of approval for a project. Major projects, such as a Master Plan, require public hearings before the Planning Commission and Board of Supervisors. Other types of applications may be decided upon by the Deputy Zoning Administrator or Planning Commission. The applicant reserves the right to appeal the decision.

Copies of the staff report are made available to interested people prior to the hearing. Planning Department files are public and anyone may examine an application.

RESIDENTIAL DEVELOPMENT POTENTIAL

In cooperation with the local governments of Marin County, the Association of Bay Area Governments (ABAG) performed a local development policy survey in the summer of 1983. The survey reviewed local general plans, development policies, and zoning regulations for the purpose of providing an estimate of the development potential of vacant land. These factors, plus the results of the County's vacant land survey, were incorporated into Projections '83, a forecast of the expected growth of population, housing, and employment for the twenty years between 1980 and 2000.

The study area for each jurisdiction was the incorporated city or town plus the surrounding unincorporated area in the jurisdiction's "urban service area" or "sphere of influence." These broad geographical areas, defined by the Local Agency Formation Commission (LAFCO), contain land in which the city has a planning interest.

The report produced after the survey listed the number of acres and number of units for the following types of development: residential, local-serving, basic, and mixed use. Residential development is housing of all types. Local Serving uses include commercial enterprises such as restaurants, offices, and stores, institutions such as churches, hospitals, and local government facilities, and infrastructure uses such as utilities, communications, and transit which serve the resident population. Basic development includes manufacturing, transportation, or institutional land uses that serve a regional, state, or national market. The goods and services are produced for export. Mixed use development is a combination of two or more of the above-listed types of development. An example would be a building that has shops or offices on the first floor with apartments on the second or third floors.

ABAG also classified the land supply according to its development potential. Land with high potential had projects which were recently built, under construction, recently approved, or likely to be approved.

Land with medium potential included projects that are planned for development between 1985 and 1990 and sites which are ready for development with services and infrastructure in place. Land with low potential includes sites which may be developed but have environmental or service/infrastructure constraints that cannot be resolved in the near future. Large-scale projects with long lead times are included in this category also.

Policy Survey Conclusions

After reviewing the amount of vacant land, local plans, development policies, and zoning regulations, ABAG calculated the development potential of Marin County, expressed in number of housing units. Given present general plans, policies, and zoning, Marin has enough vacant land with the potential to meet all of its expected housing needs through the year 2000. The five conclusions ABAG published in its report are:

1. There are at least 24,251 acres of land available for development activity in Marin County. This estimate includes 976 acres with rebuilding or conversion potential.
2. The available land supply for urban and suburban development is concentrated in the county's "city-centered corridor" communities.
3. The potential for residential development, excluding mixed use acreages and units, is 22,302 acres. This land can support 24,977 housing units.
4. Planned residential densities in Marin tend to be low, with the lowest densities in unincorporated rural areas.
5. Some communities are planning for mixed uses, combinations of residential, local-serving, and/or basic development activities.

Table 8.1 lists the number of gross acres of available land by type of use in each of the local government planning areas. By "gross acres", ABAG means that the specified acreage is available for a given use but the sites may not be developed to their maximum potential if natural constraints such as steep slopes, unstable soils or flood hazards exist.

Table 8.2 lists the potential number of acres available for housing and the potential number of units in each of the local government planning areas. Both acreage and units are classified high, medium, or low according to development potential.

Table 8.1

LAND AVAILABLE FOR DEVELOPMENT
Marin County and Cities, 1980-2000

Gross Acres of Available Land by Type

	Residential	Local-Serving	Basic	Mixed Uses	Total
San Rafael	2,063	413	191	94	2,761
Novato	5,424	378	550	43	6,395
Mill Valley	800	18	0	1	819
San Anselmo	222	2	0	0	224
Larkspur	435	66	0	0	501
Corte Madera	295	69	3	0	367
Fairfax	347	4	0	1	351
Sausalito	237	88	2	21	348
Tiburon	1,856	3	0	0	1,859
Ross	20	0	0	0	20
Belvedere	6	1	0	0	6
Unincorporated	<u>10,597</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>10,600</u>
TOTAL	22,302	1,044	746	159	24,251

SOURCE: Association of Bay Area Governments, Local Development Policy Survey.

NOTE: Acreage land figures for the cities include unincorporated land within the cities' Urban Service Areas or Spheres of Influence.

Table 8.2

RESIDENTIAL DEVELOPMENT POTENTIAL
Marin County and Cities, 1980-2000

	<u>High Potential</u>		<u>Medium Potential</u>		<u>Low Potential</u>		<u>Total Potential</u>	
	Acres	Units	Acres	Units	Acres	Units	Acres	Units
San Rafael	723	1,430	1,340	4,135	0	0	2,063	5,565
Novato	1,079	2,474	3,807	7,466	538	269	5,424	10,209
Mill Valley	250	523	537	508	13	108	800	1,139
San Anselmo	129	159	93	96	0	0	222	255
Larkspur	77	625	358	662	0	0	435	1,287
Corte Madera	186	542	95	243	14	64	295	849
Fairfax	22	117	289	343	36	222	347	682
Sausalito	0	0	237	959	0	0	237	626
Tiburon	250	438	1,577	1,398	29	138	1,856	1,974
Ross	5	5	15	15	0	0	20	20
Belvedere	0	0	6	17	0	0	6	17
Unincorporated	0	0	10,597	2,354	0	0	10,597	2,354
TOTAL	2,721	6,313	18,951	17,863	630	801	22,302	24,977

SOURCE: Association of Bay Area Governments, Local Development Policy Survey.

NOTE: Acreage and units for the cities include unincorporated areas within the Cities' Urban Service Area or Spheres of Influence.

With existing general plans, development policies, and zoning regulations, Marin County has enough land to accommodate twice its total projected housing need between 1980 and 1990. If the sites with low potential are developed the county could provide enough housing units to accommodate all of its expected growth between 1980 and the year 2000.

MARIN COUNTY ACREAGE

January 1, 1983

<u>Total County</u>	<u>Acres</u>
Land Area	332,928
Water Area	55,424
TOTAL	388,352

<u>Public Use Land</u>	
Federal Parks	91,760
State Parks	12,853
Marin County Parks	2,115
Marin Watershed (MMWD & NMWD)	22,731
County-wide Open Space	12,560
Tidelands, Marshlands, Mudflats	10,000
TOTAL	152,019

<u>Other Tax Exempt Land</u>	
Church and Welfare	10,813
Military	1,837
TOTAL	12,650

<u>Contract Restricted Lands</u>	
Agricultural Preserve Contracts (Williamson Act)	90,914
Private Open Space Contracts	2,529
TOTAL	93,443

<u>Summary</u>		<u>% of Total Acreage</u>	
Total acreage in County of Marin		100%	388,352
Less: Water Area	55,424	= 14.3%	
Public Use Land	152,019	= 39.1%	
Other Tax Exempt Land	12,650	= 3.3%	
Contract Restricted Land	<u>93,443</u>	= 24.1%	<u>313,536</u>
TOTAL available non-restricted land		19.3% =	74,816

GOALS

The Marin Countywide Plan has four goals which provide philosophical guidance in policy and decision making:

- Goal 1: Discourage rapid or disruptive population growth, but encourage social and economic diversity within communities and in the County as a whole.
- Goal 2: Achieve greater economic balance for Marin, by increasing the number of jobs and the supply of housing for people who hold them.
- Goal 3: Achieve high quality in the natural and built environments, through a balanced system of transportation, land use, and open space.
- Goal 4: Achieve a sustainable energy future by reducing total energy demand and by replacing total dependence on imported, non-renewable energy resources with reliance on local, renewable energy resources.

POLICIES

Existing Policies

Land Use

Concentrate commercial and high-density residential development in high-intensity, transit-accessible nodes, rather than allowing sprawl or continuous strip development along freeway corridors.

Include housing in non-residential areas, where appropriate.

Relate new development to existing community character, to community centers and transportation.

Encourage developments that fit into and enhance the natural environment, rather than destroying or disrupting it.

Growth Management

Regulate the locations and rates of residential growth, in accordance with the goals of the plan.

Social and Economic Diversity

Maintain the ratio of low- and moderate-income housing supply, in a dispersed rather than concentrated pattern and in conjunction with regional housing policies. This will be done by voluntary measures to limit prices and rents in existing housing and by including low- and moderate-income units in new developments.

Offer incentives to private development, such as higher densities in appropriate locations and modification of site improvement standards, where suitable, in order to achieve social and economic diversity in housing.

Retain and increase the supply of family-size units in multiple structures.

Expand public and non-profit sponsored housing programs.

Using precise criteria and assuming neighborhood acceptance, permit second units in selected single-family areas with emphasis on meeting the needs of low and moderate income housing. The County shall initiate a review of its experience with its unit ordinance, and shall make recommendations as appropriate.

Preserve and rehabilitate older housing, without significantly increasing costs to low- and moderate-income present residents.

Establish a city-county land bank to secure suitable sites for low- and moderate-income housing.

Energy

Provide for solar access in the placement, orientation and design of all new housing units.

Include passive solar design and energy conservation measures in new housing developments.

Condominium Conversions

Conversion of apartment units to condominiums shall be prohibited when a housing emergency exists. A housing emergency is defined by a countywide rental vacancy rate of 5% or lower and a multifamily rental proportion of less than 25% of the total housing stock. When no housing emergency exists, conversions may be allowed if sufficient provisions are made for inclusion of units for low- and moderate-income households, upgrading of units to condominium standards and adequate notification of and relocation assistance for existing tenants.

New Policies

Social and Economic Diversity

Encourage the construction of manufactured housing.

Encourage programs which respond to the special housing needs of female-headed households, large families, the elderly, the handicapped and farm workers.

Energy Conservation

Provide information and financial support, if possible, to families who wish to make their homes more energy efficient.

Equal Opportunity

Promote equal opportunity in the housing market for all persons regardless of race, color, religion, sex, age, marital status, ancestry or national origin, and act promptly resolve cases of alleged discrimination.

Support efforts of housing service organizations who provide information and referral to low-income families seeking housing opportunities.

Accessibility

Encourage the development of new housing accessible to the handicapped, and encourage the removal of architectural barriers in existing housing. Provide financial assistance to eligible low income families and individuals.

OBJECTIVES

According to its goals and policies, the County of Marin will provide for the construction of new housing and the maintenance and conservation of existing housing by utilizing its public powers and all available financial resources.

As it has in recent years, the County will pursue all opportunities to facilitate the provision of housing for families at low income levels. In addition to the continued use of existing programs, the County will take advantage of any new opportunities in coming years to further its housing objectives.

Table 12.1 lists the Marin's housing objectives by type of program for the time period 1985 - 1990. Listed with each program are the agency responsible for the program's implementation and the maximum number of housing units or households which will receive assistance.

When projecting the impact of a program into the future, it is necessary to make some assumptions about future conditions. For example, the County may assume that a given federal housing program will continue to be funded at a certain level. This assumption in turn determines how many housing units could be assisted.

Although the Housing Element contains information about the entire county, the County Government has jurisdiction only over unincorporated areas. Therefore, the objectives will apply only to unincorporated areas. Each city or town will specify its objectives in its Housing Element.

Table 12.1

HOUSING OBJECTIVES

Programs Which Provide New Units

Program: Inclusionary Ordinance	100
Responsible Agency: Planning Department, Housing Authority	
Assumptions:	

Based on development trends of the previous five years, the County projects a growth rate of 300 units per year for the next five years. Assuming that two-thirds of the new units will be in subdivisions of 15 or more units, there is a potential for 100 inclusionary units (10% of 1000 = 100). At a minimum, the inclusionary housing program serves moderate income families. If it is financially feasible to do so, low income families will also be served.

Implementation Date: July 1, 1984 - July 1, 1989

Program: Second Unit Ordinance	50
Responsible Agency: Planning Department	
Assumptions:	

During the first year of the second unit ordinance, the County has received 15 applications. If that rate of interest continues the County expects to receive 75 applications during the next five years. Of these, an estimated maximum of 50 may be approved. The second unit ordinance was designed to serve low- and very low-income persons.

Implementation Date: July 1, 1984 - July 1, 1989

Program: Section 202 Loans	50
Responsible Agency: Non-profit housing developers	
Assumptions:	
In the past few years Marin's non-profit housing developers have been successful in receiving funding. (An underlying assumption is that the Federal Government will continue to fund Section 202.). Two projects of 25 units each are projected to be built.	
Implementation Date: July 1, 1984 - July 1, 1989	
Program: Community Development Block Grants	100
Responsible Agency: Planning Department	
Assumptions:	
The County expects CDBG funding to continue through the 1980's. Based on the number of feasibility studies underway and the recent rate of construction, a maximum of 100 units could be built in the unincorporated area during the next five years. The CDBG program serves low- and very low-income households.	
Implementation Date: July 1, 1984 - July 1, 1989	
Program: Construction Bonds	30
Responsible Agency: Housing Authority	
Assumptions:	
If developers can be encouraged to participate, the County plans to issue tax-exempt bonds for the purpose of subsidizing the construction financing of new apartment units. As a requirement for participation in the bond program, developers would set aside 20% of the units for low income households. The Housing Authority is trying to combine 100 to 150 units for a bond issue valued between \$5 and \$10 million. Assuming 150 units are built and developers offer 20% of the total, 30 units would be available for low income families.	
Implementation Date: January 1, 1986	
Program: Mortgage Revenue Bonds	25
Responsible Agency: Housing Authority	
Assumptions:	
If Congress and the state legislature authorize local governments to issue tax-exempt bonds for public purposes, the County will issue bonds to create a pool of money for mortgages. Details of the program may differ from the previous issue, but it is probable that the mortgages will be available to first-time home buyers on newly constructed units. The size of the bond issue is expected to be large enough to assist 250 units. Unless there are price restrictions placed on the new units, they will be affordable only to above moderate-income households.	
Implementation Date: July 1, 1986	
Program: Private Construction	1500
Responsible Agency: Planning Department	
Assumptions:	
During the last five years an average of 300 permits have been granted per year. About two-thirds of these units were single family; one-third were multifamily. If this ratio continues, of the 1500 expected units, 1075 will be single family; 425 will be multifamily. Privately built, market-rate units serve above moderate income families. Some units may be available for moderate income families in addition to those	

required by the County's inclusionary ordinance.
Implementation Date: July 1, 1984 - July 1, 1989

Programs Which Provide Rental Assistance

Program: Section 8 Rental Assistance 42
Responsible Agency: Housing Authority

Assumptions:

Currently, 37 of the 836 Section 8 recipients live in unincorporated areas. Applying this ratio to new applications will result in an additional 5 participants who live in unincorporated areas. The total number of households served will be 42. The County assumes that even if the Section 8 program does not continue in its present form, it will be replaced by a comparable program that will serve the same groups. Section 8 serves low-and very low-income households.

Implementation Date: July 1, 1984 - July 1, 1989

Program: Project Independence 0
Responsible Agency: Housing Authority

Assumptions:

The Housing Authority received an additional 6 certificates to assist disabled individuals. It is unlikely that any of the persons will reside in the unincorporated area.

Program: Rebate for Marin Renters unknown
Responsible Agency: Housing Authority

Assumptions:

The Housing Authority submitted an application to the San Francisco Foundation for continued funding of the rebate program. The foundation grant requires matching funds from local governments. Although several jurisdictions have expressed support for the program, none has allocated any matching funds at this time.

Programs Which Rehabilitate Existing Units

Program: Residential Rehabilitation Loan Program 150
Responsible Agency: Housing Authority

Assumptions:

Using CDBG funds, the Residential Rehabilitation Loan program has assisted an average of 30 households per year. This projection is based on the assumption that the program will be funded at a level which will allow this rate to continue.

Implementation Date: July 1, 1984 - July 1, 1989

Program: Public Housing Modernization 500
Responsible Agency: Housing Authority

Assumptions:

The Housing Authority is expected to continue receiving funds for its modernization program. CDBG funds will supplement other federal allocations.

Implementation Date: July 1, 1986

Program: Housewarming Project 600
Responsible Agency: Planning Department

Assumptions:

If private funding is continues, the Planning Department will proceed to Phase III of its weatherization program. The expected grant will allow 1200 units to be assisted, about half of which will be in unincorporated areas.

Implementation Date: January 1, 1987

Program: Home Weatherization

200

Responsible Agency: Marin Citizens for Energy Planning

Assumptions:

If their present level of funding continues, MCEP is expected to weatherize approximately 90 units per year for the next five years. Just under half of the 450 units are projected to be in unincorporated areas.

Implementation Date: January 1, 1987

Programs Which Provide Housing Services

Program: Housing Information and Referral Services

Responsible Agency: Housing Center of Marin, Ecumenical Association for Housing, Marin Center for Independent Living, Housing Authority

Assumptions:

With continued federal, state, and local support, these agencies will serve as housing information resource and referral centers.

Implementation Date: July 1, 1984 - July 1, 1989

Program: Equal Opportunity Enforcement

Responsible Agency: Housing Center of Marin

Assumptions:

The Housing Center of Marin will provide equal opportunity information and counseling services. Also, the Housing Center will employ "testers" to document alledged discrimination. (For example two testers will apply for an apartment whose landlord is reported to discriminate. One tester will have the attribute discriminated against, the other tester will not. Each tester will report the results.)

Implementation Date: July 1, 1984 - July 1, 1989

Program: Emergency Shelter

Responsible Agencies: Housing Center of Marin, Marin Abused Women's Services

Assumptions:

With continued public and private support, the Housing Center of Marin will provide temporary shelter for families and single mothers who have been forced to leave their homes due to circumstances beyond their control, or who after arriving in Marin have no place to stay. Marin Abused Women's Services will provide temporary accommodations for women who are victims of domestic violence.

Implementation Date: July 1, 1984 - July 1, 1989

Program: Landlord Tenant Mediation Services

Responsible Agency: Citizen's Service Office

Assumptions:

The County will continue to support mediation services. Counselors help resolve disputes between landlords and tenants over such issues as security deposits, rent increases, and discrimination. July 1, 1984 - July 1, 1989

APPENDIX A

AN EVALUATION OF THE 1979 HOUSING ELEMENT

The Housing Element of Marin Countywide Plan, written in 1979, specified that the unincorporated area of Marin should have 631 units available for low income households by 1985. Through its programs the County has provided for 203 units. There is also an unknown number of unauthorized second units which may be occupied by low income households. Table A lists the projects and number of units.

Table A

HOUSING NEEDS AND ACCOMPLISHMENTS Unincorporated Marin County, 1980-1985

Units	Project
631	Unmet Housing Need
24	Mill Valley Corporation Yard
72	Parnow House
25	Village Oduduwa
25	West Marin Senior Housing
10	West Marin Mutual Owner-Builder
19	Headlands II inclusionary units
28	Proposed inclusionary units
203	TOTAL

Although as of June 1, 1984 the County is falling short of its quantified unmet need, it would be inappropriate to say that the County's programs are not successful. The primary source of County funds for new construction is the Community Development Block Grant program. In recent years the County has channeled as much as 70% of its \$2 million grant into a variety of housing activities. Many of the projects which receive funding are built in cities in accordance with the County's Urban Service Area policy. Those projects help to meet the needs of the cities as regards low income housing.

The inclusionary ordinance provides for low income housing, but the number built is dependent upon the level of construction in the private market. The first years of the 1980s have been poor ones for housing development. A relatively low number of units have been constructed compared to historical trends. Another complicating factor is that the ordinance is applicable only to projects of 15 or more units - the type of projects not likely to be undertaken in recessionary periods. Although 477 single family and 190 multifamily units have been constructed since 1979, only the 19 units at Headlands II were obtained. The units constructed by private developers were not in projects of sufficient scale (i.e. 15 or more units) for the County to obtain inclusionary units.

In conclusion, the County is using its available resources and powers to provide housing affordable to low-income households, but the need exceeds the County's capacity.

APPENDIX B

CITIZEN PARTICIPATION

In an effort to involve all segments of the community in the preparation of the Housing Element, the County will make available a draft Housing Element and hold public hearings.

A draft of the Housing Element will be reviewed by the Countywide Plan Advisory Committee, an appointed body composed of elected officials from local governments. Copies of the draft will be mailed to housing project sponsors, housing advocates, and other groups or persons involved in housing issues, and will be available for the public at the Marin County Planning Department. After the draft is released, interested parties will have at least one month to submit comments. Public hearings will be held in May and June before the Planning Commission and Board of Supervisors. The dates of the public hearings will be noticed in local newspapers and a reminder sent with copies of the draft Housing Element to interested persons.

APPENDIX C

COST OF CONSTRUCTION

As an example of the cost of construction in Marin County, the Builders Exchange offers the following figures for a typical three bedroom, two bath house in a small subdivision. The overall design would be semi-custom (the builder alters the design of each unit to avoid monotony). One further assumption is that the parcel is near existing roads and utilities.

<u>Cost</u>	<u>Item</u>
\$50,000	Level parcel, approximately one acre in size
10,000	infrastructure installation: storm drain, sewer and water lines, electric lines
<u>150,000</u>	Labor and materials for construction, (2000 sq. ft. unit)
210,000	

The Builders Exchange further subdivided the \$150,000 cost of constructing the house into the following percentage components:

<u>Percentage</u>	<u>Item</u>
2%	fees and plan check
3.5-4	foundation
8-8.5	lumber
8.5	labor (rough e.g. framing)
2	labor (finish)
5	cabinets, counters
2.5	insulation
5.5-6	roof
2.5	doors
1.5	windows, sliding doors
8	siding
4-4.5	sheet rock
4	painting
2.5-3	carpeting
1.5	appliances
12-13	heating, plumbing
4.5-5	electrical wiring
1.5-2	brick fireplace & chimney
2.5	miscellaneous labor costs (e.g. workmen's comp)
10-15	overhead and profit

APPENDIX D

DEVELOPMENT IN THE COASTAL ZONE

Since January, 1982 there have been 72 permits issued for residential construction in the Coastal Zone. All of the permits were for single family homes, including mobile homes. None of the units were affordable to low- or moderate-income families.

There have been no permits issued for demolition of an existing unit, nor has there been any redevelopment which required the relocation of a family.

APPENDIX E

PERMIT FEES

1.	a.	Use Permit and Amendment	\$700
	b.	Minor Use Permits (e.g. Administrative Use Permit)	475
	c.	Use Permit for Second Unit.....	225
2.		Use Permit for Mobile Home.....	200
3.		Variance and Amendment	565
4.		Extension to Use Permit or Variance	150
5.		Sign Review 200	
6.		Sign Permit 75	
7.		Design Review of Precise Development Plan	
		<u>Value of Project</u>	
		Under \$20,000 275	
		\$20,000 - \$50,000	650
		\$50,000 - \$100,000	900
		\$100,000 - \$500,000	1,500
		\$500,000 - \$1,000,000	2,000
		Over \$1,000,000.....	3,500
		Design Review/Single Family	450
		Design Review/Waiver	125
8.	a.	Amendment to Design Review/Precise Development Plan	600
	b.	Extension to Design Review/Precise Development Plan	150
9.		Master Plan	
		Non-residential	4,500 + 0.1% value
		Residential, 1 - 4 units	2,500 + 50 per unit
		Residential, 5 or more units	4,500 + 20 per unit
10.	a.	Minor amendment to Master Plan.....	600 app. fee
	b.	Major amendment to Master Plan.....	1,500
11.		Rezoning 1,500	
12.		Building Permit	70 all plan checks
		(Building Inspection, Dept. of Public Works)	
		Building Permit (Solar Panels).....	20
13.		Appeals to Planning Commission	75
14.		Appeals to Board of Supervisors	150

15. Countywide, or Community Plan or Coastal Plan Amendment	1,500
16. Environmental Review	
a. Initial Study	275
b. Categorical Exemption.....	50
c. EIR Administration Overhead	25%
17. Coastal Permits	
a. Administrative.....	125
b. Public Hearing	250

In the event that any work has been undertaken or use made of the property without legal authority prior to completing the requisite procedures necessary to authorize such work or use, the applicant shall pay two times the specified amount.

FEES FOR SUBDIVISIONS:

Tentative Map, where Final Map is required.

\$2,000 for the first five lots, plus \$10 for each additional lot, plus \$10 for each lot proposed to be served by a septic tank.

Tentative Map, where Parcel Map is required.

- a. For 4 or less lots \$1,800 plus \$10 for each lot proposed to be served by a septic tank.
- b. For 5 or more lots, \$2,000 plus \$10 for each additional lot, plus \$10 for each lot proposed to be served by a septic tank.
- c. For lot line adjustments where no additional lot is to be created, \$100.

Extension of an approved Tentative Map, where Final Map is required50

Revision of an approved Tentative Map, where Final Map is required250

Extension of an approved Tentative Map, where Parcel Map is required50

Revision of an approved Tentative Map, where Parcel Map is required250

Reversion to Acreage250

Certificate of Compliance.....150

Appeal

- a. To Planning Commission75
- b. To Board of Supervisors150

MULTIPLE FEE SCHEDULE FOR VARIOUS PERMITS EFFECTIVE JULY 1, 1981

1. Encroachment Permit

a. Application	\$30.00
b. Inspection	<u>40.00</u>
TOTAL	\$70.00

2. Recorded Encroachment Permit

a. Application	\$30.00
b. Inspection	40.00 Min
c. Processing	<u>25.00</u>
TOTAL	\$95.00

3. Excavating, Grading & Filling Permit

a. Application	\$375.00
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(Additional inspection and Environmental review fees shall be determined and required prior to the issuance of a permit)

4. Tidelands Permit

a. Application	\$375.00
b. Environmental Review	<u>165.00</u>
TOTAL	\$540.00

5. Individual Sewage Disposal Permit Waiver

a. Application	\$250.00
b. Waiver 100.00	
c. Environmental Review	<u>165.00</u>
TOTAL	\$515.00

LAND DEVELOPMENT FEE SCHEDULE

1. Permit Applications

a. Dam Permit	\$350
b. Creek Permit	150
c. Gallinas Creek Dock Permit	60
d. Corte Madera Creek Dock Permit	30
e. Transportation Permit	35
Blanket Permit	50
f. Encroachment Permit	45
Inspection	50
g. Recording Encroachment Permit	25
h. Excavating, Grading & Filling Permit	375
i. Tidelands permit	400
j. Quarry Permit with Reclamation Plan	1,000
Reclamation Plan Only	500
Annual Inspection	200

2. Inspection Fees

a. Field Inspection

Grading

Up to 10,000 cubic yards use "Other Work" formula

10,000 cubic yards to 50,000 cubic yards	10 per 1,000 c.y.
50,000 cubic yards to 100,000 cubic yards	6 per 1,000 c.y.
Over 100,000 cubic yards	4 per 1,000 c.y.

Other Work

Value of Work (excluding grading over 10,000 cubic yards)

0 to \$10,000	3% of value, \$25 Min.
Over \$10,000	4% of value
Annual Blanket Encroachment Permit	\$300
Encroachment Permit Inspection	50
Annual Quarry Permit Inspection	200

- b. Building Permit Site Check-(applicable only when other fees for this work are not collected) and, Plan Inspection-(applicable only when detailed plan are submitted):

\$0 to \$50,000	2% of value, \$25 Min.
\$50,000 to \$100,000	\$1,000 plus 1.6% of value over \$50,000
\$100,000 to \$200,000	\$1,800 plus 0.8% of value over \$100,000
Over \$200,000	\$2,800 plus 1.25% of value over \$200,000

3. Environmental Review Fees

a. Initial Study	275
b. Categorical Exemption	50

Public Works	Planning	Recorder
<u>Final Map Checking</u>	<u>Inspection Fees</u>	
Actual Cost	To be specified	\$95 \$6 first sheet
<u>Parcel Map Checking</u>		
\$450 + \$25 if calculations hand prepared	To be specified	\$50 \$6 first sheet \$2 ea. add'l'n sheet
<u>Record of Survey</u>		
\$50 for routine survey and \$150 for survey which accom- plishes a Lot Line Adjustment	-0-	-0- \$6 first sheet \$2 ea. add'l'n sheet

Figure 7.4

LEGEND:

- Incorporated Areas
- Unincorporated Areas
- Roads Within Incorporated Areas
- ① - 5,000 - 10,000 } Average
- ② - 10,000 - 15,000 } Daily
- ③ - 15,000 & over } Traffic

July, 1975

N O I S E E L E M E N T

POTENTIAL NOISE CORRIDORS-EASTERN MARIN COUNTY



PART 7. NOISE

I. BACKGROUND

A. PURPOSE

This element of the Marin Countywide Plan deals with the quantification and control of noise generated by transportation facilities in our environment. The California Government Code, Section 65302 (g), requires that the County prepare:

"A noise element in quantitative, numerical terms, showing contours of present and projected noise levels associated with all existing and proposed major transportation elements. These include, but are not limited to the following:

- o Highways and freeways.
- o Ground rapid transit system.
- o Ground facilities associated with all airports operating under a permit from the State Department of Aeronautics.

These noise contours may be expressed in any standard acoustical scale which includes both the magnitude of noise and frequency of its occurrence. The recommended scale is a sound level A,¹ as measured with a-weighting network of a standard sound level meter, with corrections added for the time duration per event and the total number of events per 24-hour period.

Noise contours shall be shown in minimum increments of five decibels and shall be continued down to 65 dB(A). For regions involving hospitals, rest homes, long-term, medical care, or outdoor recreation areas, the contours shall be continued down to 45 dB(A)..."

Instead of a plot of noise contours on a map, a list of local collector, arterial, and highway segments in the City-Centered Corridor of the County has been prepared with various levels of noise listed by distances from these streets. This listing procedure is presented in Appendix A and is preferred to a noise contour map because it provides in tabular form a relationship between existing and projected ADT on major roads and the corresponding distances from the center of the roads at varying dbA levels. Major advantages of this method include:

- o Ease of plotting precise dbA contours at any scale map without trying to measure distances and convert these from a small map.
- o Ease of updating and modifying noise levels based on new data.

As an approximate method to interpret for noise levels not shown on the list, it can be assumed that noise will increase 5 db(A) for every doubling of the distance from

¹NOTE: See glossary for acoustic terminology.

the roadway. Conversely, noise will increase by approximately 5 db(A) when the distance from the roadway is halved. This is particularly applicable where topography is gentle. (For a full explanation, the reader is referred to the Technical Report of Bolt, Beranek and Newman.) In addition to this listing, CALTRANS has furnished the County with a map showing L10 contours for Highway 101.

B. PROBLEMS AND ISSUES ASSOCIATED WITH NOISE

Sound refers to anything that is or may be perceived by the ear. Noise is any unpleasant and/or annoying sound.

The sound from a unique source decreases with increasing distance. The amount of sound reaching a receiver is dependent upon barriers between the source and the receiver, atmospheric conditions, and the quantity and volume of the sound emitting sources.

The typical community noise environment is comprised of a background noise level and higher noise levels. These higher noise levels are often transportation oriented. Noise from other than transportation sources which could pose problems include: power tools, air conditioning, sound amplifying equipment, animals, musical instruments, industrial machinery, garden equipment, off the road vehicles, etc.

Background noise levels are lower at night. Consequently, the problem generated by higher noise levels from individual sources are more pronounced during nighttime hours, a time when most people desire quiet.

The noise level of our society has increased at a rate of one decibel a year over the past 25 years.² The increase has been due in part to the introduction of larger and noisier transportation vehicles and the increase in the number of vehicles. Additionally, the increasing demand of our expanding population for better, more convenient transportation facilities, coupled by inadequate noise control measures or land use controls, has moved the sources of noise closer to the people. The Occupational Safety and Health Act (OSHA) contains standards for regulating excess industrial noise for worker protection.

The Transportation Noise Problem

Excessive noise from vehicles and aircraft constantly intrude upon our daily lives without any compensation from those responsible for the generation of the undesirable noises. Our society tolerates noise because it is widely believed that the expenditure for quieting engines and tires in their design and construction is less effective than would be the same expenditure for buffering their noise after they have been built.

¹NOTE: See glossary for acoustic terminology.

²Senator Mark O. Hatfield, "The New Sound - Noise", Catalyst, Vol. 1, No. 3 (Fall, 1970), p. 25.

The County supports State and Federal regulation of vehicle noise. Some communities require more stringent standards appropriate to local sensitivity; however, these standards are often more stringent than regulations can effect. In Marin County it has been found that automobiles are the principal noise source, and therefore, the controlling element in community noise levels.

The increase of traffic noise in Marin County has been caused by increased use of automobiles, roads which permit faster speeds, and elevated freeways. The latter effects the distribution of noise, since heavily used freeways produce a wider impact area.

Generally, vehicular noise does not follow the 24-hour traffic fluctuations. The overall level of noise, when measured on a daily basis, lessens during the evening and nighttime hours and rises with morning traffic, but remains fairly constant between and during the commute periods.

Annoyance from traffic noises is caused mainly by variations in the magnitude of sound. From points close to a roadway, bursts of noise are heard from individual vehicles as they pass. Records of voluntary complaints against community noises show a predominance of response from people affected by these on and off traffic sounds. This is not meant to pardon the roar of heavy continuous traffic.

Effects of Extreme Noise

The effects of severe noise are many and can be placed in four categories:

- o Physiological - physical effect
- o Psychological - emotional effect
- o Sociological - group effect
- o Economical - cost effect

Physiological. Exposure to sufficient levels of noise for long periods of time can produce temporary or permanent loss of hearing. In general, sound levels must exceed 80 dB(A) for sustained periods before hearing loss occurs.¹ The greater or longer the exposure, the greater the potential for hearing loss. Other physical effects of noise may be rapid heart beat, blood vessel constriction, dilation of the pupils, paling of the skin, headaches, muscle tension, nausea, insomnia, and fatigue. If the noise is of sufficient level, the stomach, esophagus, and intestines may be seized by spasms.²

Psychological. Noise can interfere with sleep. Excessive exposure to noise may also cause symptoms of anxiety, anger, vertigo, hallucinations, and in extreme

¹Central Institute for the Deaf, Effects of Noise on People, Washington: Environmental Protection Agency, (December 31, 1971), p. 18.

²Ibid., p. 129.

cases, has been blamed for homicidal and suicidal tendencies.^{1,2} It has not been scientifically proven, however, that noise is the primary cause of these symptoms.

Sociological. There are two alternate means of handling noise intrusions -- reduce the problem by shielding, escaping, or removing the noise source; or, adapt to the noise environment. Adaptions to noise intrusions may adversely affect group interrelationships. The intrusion of noise can affect every facet of human existence, from one's family life to one's occupational, educational, and religious activities. The possible adverse affects of an individual's reactions to noise -- physical and emotional maladies -- may be compounded in the groups situation. More importantly, though, noise may threaten the ability to communicate and to comprehend. For example, children who live or attend school near sources of excessive noise can be handicapped, not only in their learning process, but also in their socialization process.³

Economic. The costs of living with severe noise as well as the costs of measures to reduce the impacts of severe noise intrusion are appreciable and include medical care, loss of efficiency and production, reduction of property value, litigation, abatement measures, and increased vacancies. For example, in order to achieve acceptable interior noise levels in an area experiencing a high frequency and magnitude of aircraft noise, it cost \$12,550 to \$14,450 in 1969 for a 1,530 square foot stucco house.⁴ It would cost approximately 500 million dollars to achieve the noise levels proposed by the Federal Aviation Administration for the present commercial fleet.⁵ An eight-foot wall or earth berm adjacent to a freeway costs approximately \$700,000 per mile.

In addition, the costs of increased litigation, sound insulation, acquisition of land and construction for noise mitigation of transportation facilities and vehicles contribute to higher prices for goods and services as well as higher taxation to cover these costs.

Land Use/Transportation Interrelationship

Traditionally, land use and transportation planning have not adequately considered noise impacts. Consequently, developed areas adjacent to major transportation facilities have become impacted by noise. Once a noise problem has been allowed to develop, there are three alternate remedies available: 1) Reduce the noise at

¹ Ibid., p. 130.

² Noise Control Act of 1971 and Amendments -- Hearings before the Subcommittee on the Environment of the Committee of Commerce, Washington: U.S. Government Printing Office, (1971) p. 79.

³ Central Institute for the Deaf, op. cit., p. 55.

⁴ Wyle Laboratories, Home Soundproofing Pilot Project for the Los Angeles Department of Airports, El Segundo: Wyle Laboratories, (March, 1970), p. 19.

⁵ Noise Pollution, Senate Hearings on S1016, S3342, and HRI1021, Washington: U.S. Government Printing Office, (1972), p. 523.

the source; 2) Reduce noise by controlling the path of transmission; 3) Reduce the noise impact on the receiver. Source reduction lies outside the immediate control of local planning bodies. The other two potential remedies entail, in some cases, massive disruption of existing land use patterns once the noise problem has become aggravated.

The tolerance of land use activities to noise from vehicles is described in Figure 7.1. For each land use type, increasing noise levels can be expected to cause interference, annoyance, or hearing damage. The community response is assessed in Figure 7.2 and is correlated with the recommended steps to avoid or abate the noise. This chart permits the evaluation of alternative noise standards more or less stringent than those recommended in this element.

Relationship to Airport Vicinity Noise

There is a possible overlap of noise effects in the vicinity of airports due to the combined effects of highway and freeway noise, airport ground facilities noise, and aircraft operational noise. This will require special evaluation of noise sensitive development proposals in the airport vicinity. State standards currently provide for no residential development in areas above 65 CNEL¹ level due to aircraft noise.

Ground facilities noise includes engine testing and engine "runups" of planes preparing to take off. These specific interval activities will produce peaks of noise substantially higher than highway generated noise which is more constant and of longer duration. ALUC (the Airport Land Use Commission) is responsible for preparing a plan around airports and for reviewing development proposals consistent with such an adopted plan.

The information in this noise element can be used by the ALUC in forming its recommendations regarding noise standards in the ALUC plan. The State and Federal governments have preempted control of operational vehicle noise including aircraft.

II. POLICIES

It shall be the objective of Marin County to concern itself with noise regulations and abatement strategies only where noise is now a significant problem or where proposed activities could create a measurable noise problem.

To this end, the decisions and activities of the County government shall be guided by the following goals:

- o Alert the public regarding the potential impact of excessive transportation noises as well as stationary source noises, and attempt to assign the cost of mitigating noise to those who produce the noise.

¹See glossary for definition of acoustical terminology.

Figure 7.1 LAND USE COMPATIBILITY CHART FOR COMMUNITY NOISE

LAND USE CATEGORY	LAND USE AND COMMUNITY RESPONSE*							
	55	60	65	70	75	80	85	90
RESIDENTIAL - SINGLE AND TWO FAMILY HOMES, MOBILE HOMES	AI							
			BII					
				CII				
					CIII			
RESIDENTIAL - MULTIPLE FAMILY APARTMENTS, DORMITORIES, GROUP QUARTERS, ORPHANAGES, RETIREMENT HOMES, ETC.	AI							
				DII				
					BII			
						CII		
TRANSIENT LODGING - HOTELS, MOTELS	A							
				D				
						E		
SCHOOL CLASSROOMS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES, ETC.	A							
				D				
					C			
AUDITORIUMS, CONCERT HALLS, OUTDOOR AMPHITHEATERS, MUSIC SHELLS	F							
					C			
SPORTS ARENA, OUT-OF-DOOR SPECTATOR SPORTS	F							
						C		
PLAYGROUNDS, NEIGHBORHOOD PARKS	A							
				E				
						C		
GOLF COURSES, RIDING STABLES, WATER-BASED RECREATIONAL AREAS, CEMETERIES	A							
					E			
						C		
OFFICE BUILDINGS, PERSONAL, BUSINESS AND PROFESSIONAL SERVICES	A							
				D				
					E			
						E		
COMMERCIAL - RETAIL, MOVIE THEATERS, RESTAURANTS	A							
				D				
						E		
COMMERCIAL - WHOLESALE AND SOME RETAIL, INDUSTRIAL/MANUFACTURING, TRANSPORTATION, COMMUNICATIONS AND UTILITIES	A							
						D		
							E	
MANUFACTURING - NOISE SENSITIVE COMMUNICATIONS - NOISE SENSITIVE	A							
				D				
						E		

* FOR INTERPRETATION, SEE FIGURE 7.2

FIGURE 7.2

NOISE COMPATIBILITY INTERPRETATIONS FOR USE WITH FIGURE 7-1

GENERAL LAND USE RECOMMENDATIONS

- A. Satisfactory, with no special noise insulation requirements for new construction.
- B. New construction or development should generally be avoided except as possible infill of already developed areas. In such cases, a detailed analysis of noise reduction requirements should be made, and needed noise insulation features should be included in the building design.
- C. New construction or development should not be undertaken.
- D. New construction or development should not be undertaken unless a detailed analysis of noise reduction requirements is made, and needed noise insulation features included in the design.
- E. New development should generally be discouraged. Conventional construction will generally be inadequate, and special noise insulation features must be included. A detailed analysis of noise reduction requirements should be made and needed noise insulation features included in the construction or development.
- F. A detailed analysis of the noise environment, considering noise for all urban and transportation sources should be made, and needed noise insulation features and/or special requirements for the sound reinforcement systems should be included in the basic design.

COMMUNITY RESPONSE PREDICTIONS

- I. Some noise complaints may occur, and noise may, occasionally, interfere with some activities.
- II. In developed areas, individuals may complain, perhaps vigorously, and group action is possible.
- III. In developed areas, repeated vigorous complaints and concerted group action might be expected.

Land use recommendations are based upon experience and judgmental factors without regard to specific variations in construction (such as air conditioning and building insulation) or in other physical conditions (such as the terrain and the atmosphere). These features and others involving social, economic, and political conditions must be considered in recommending individual use and density construction combinations in specific locations.

Community response predictions are generalizations based upon experience resulting from the evolutionary development of various national and international noise exposure units, in particular, the Composite Noise Rating (CNR). For specific locations considerations must also be given the background noise levels and the social, economic, and political conditions that exist.

Source: Bolt, Beranek & Newman, A Background Report on Transportation Noise, Sept. 1974.

- o Establish compatible land use categories with respect to noise tolerance adjacent to transportation facilities and endeavor to protect areas that are presently quiet from future noise impacts.
- o Minimize excessive noise levels of existing and future transportation facilities so that noise does not jeopardize public health and welfare.

The following policies can provide direction for achieving these goals, if public and private resources are allocated to specific measurable implementation programs. Each of the noise policies of Marin County, together with the program appropriate for implementing each of the three general goals, is described below.

A. TRANSPORTATION

- A-1 The noise levels associated with all present and future major transportation systems in the County should be assessed.
- A-2 Excessive noise impacts from transportation noise should be mitigated through judicious use of technology, planning, and regulatory measures.
- A-3 Noise criteria should be considered in the purchase of vehicles, trucks, refuse and maintenance equipment, tires, and aircraft for use by County.
- A-4 The programs and policies of the responsible special districts, regional, state, and federal agencies should be monitored to insure that they effectively exercise their mandate to control the sources of transportation noise for new, proposed, or existing transportation facilities, vehicles, or aircraft as these activities affect noise levels in Marin County.

B. IMPLEMENTATION

- B-1 Zoning, building, subdivision, noise, and land use ordinances which will establish acceptable noise standards and employ effective techniques of noise abatement should be amended and enacted.
- B-2 The technical expertise with the County Government should be developed to identify technological opportunities, conduct studies, assess effectiveness of programs, set standards, and recommend additional mitigation techniques, programs, or alternatives.
- B-3 The public should be educated concerning the effects of noise.

C. INTERJURSDICTIONAL COOPERATION

- C-1 The various cities should be joined in a coordinated approach to the problem of noise and provide leadership and technical expertise when requested by the other jurisdictions.

- C-2 There should be cooperation with Federal, State, and regional agencies in implementing noise abatement programs in this County as mandated by Federal and State laws and to seek funds from the appropriate levels of government to underwrite the costs of these programs.
- C-3 Legislation should be recommended to the State and Federal Government that will provide for the equitable distribution of the costs of such programs.
- C-4 The Federal Government should be encouraged to standardize and simplify the measurement methods used in assessing noise impact.
- C-5 Continued Federal and State research into the noise problem should be endorsed.

III. IMPLEMENTATION

A. ABATEMENT MEASURES

Effective noise abatement measures are unique for each situation. Using the guidelines described below, probable reduction of noise can be approximated.

Reduction of noise by increasing distance from traffic routes. Generally the doubling of distance will reduce traffic noise approximately 5 dB(A). This assumes a clear sight-path between the roadway and the point of measurement. This effect is due to the spreading of sound energy, thus reducing the intensity of sound at greater distances.

The Effects of Plantings. Heavy, dense growth of vegetation (generally heavy planting 100 ft. deep between the source and the receiver) will reduce traffic noise by approximately 5 dB(A). No clear sight-path should exist, and heavy underbrush may be required to provide attenuation of sound beneath tree branches. Planting should not interfere with safe intersection sightlines and may be an inappropriate strategy in some environmentally sensitive areas due to conflicts of potential fire hazard, need for visibility, inability of soil to retain vegetation, etc.

The Effect of Barriers. These include walls, hills, earth berms, or other devices which lie between the source and receiver. The effectiveness of these depends upon several local factors, such as the height of the barrier relative to the sightline of the sound, distances of the barrier from the source and receiver, reflections of sound which diminish the effectiveness of barriers and combinations of any of these.

The Effects of Building Mass and Shape. No rule of thumb is available to estimate this effect. Reduction will depend upon whether the buildings front 100% of the street, less than 100% fronting, distance between source and receiver, other buildings between the source and receiver, and height of the buildings.

¹Bolt, Beranek, & Newman, Fundamentals and Abatement of Highway Traffic Noise, Federal Highway Administration, June 1973, pp. 1-19.

Outdoor to Indoor Noise Reduction. The effects of building construction on noise varies between materials used, distance, weather conditions, and temperature. For schools with large wall areas facing the traffic and large open windows, the effect could be as low as 6-8 dB(A). Residential buildings of wood frame construction will abate noise by as much as 10 dB(A) with the windows open to 15 dB(A) with windows closed. See Appendix C for Title 25, CAC requirements for noise insulation.

The Effects of Rain, Wind, and Temperature. These should not be regarded as effective abatement measures since their occurrence and therefore, their effects are highly unpredictable. Caution should be taken with sound measurements as these variables are to some degree always present. Documentation of noise readings should note climatic conditions existing during the readings.

B. COOPERATION WITH STATE

The County and its cities should participate actively with the State Department of Transportation (CALTRANS) to ensure that existing and new highways (when and if constructed) incorporate noise control measures particularly where adjoining land uses are noise sensitive. CALTRANS policy is to reduce traffic noise on new freeways and to reduce excessive traffic noise on existing freeways. According to CALTRANS, the extent of these measures will be contingent on local governments regulating development near freeways.

CALTRANS' three priorities in order are:

- o to protect noise sensitive development which existed or was under construction prior to route adoption,
- o to protect noise sensitive development which occurred after route adoption but before freeway construction, and
- o to protect development taking place after freeway construction.

While there was very little development subject to priority 1 (along 101, route adoption was as early as 1915 in some sections), maps furnished by the State identify many residential developments located in noisy settings for which CALTRANS priorities 2 or 3 apply.

C. LOCAL ROADS

Major County and city roads (both existing and proposed) should be evaluated with the objective of avoiding high density traffic flows through residential areas. Where appropriate, consider installing locally funded attenuating features where noise is now excessive and disruptive to existing residential neighborhoods and to hospitals, schools, libraries, and other noise sensitive activities. A portion of the roads capital improvement program could be considered for this purpose after a priority evaluation with other needs.

D. DEVELOPMENT REVIEW

Marin County shall carefully review new residential and other noise sensitive development without acoustical protection in high noise level areas. Then the design review and environmental impact review procedures should be revised to take identified noise locations into consideration more adequately at the earliest review opportunity, rather than approving development at the planning stage and then discovering at the building permit stage that costly insulation is required. The zoning ordinance should be revised and, where appropriate rezonings, should be initiated in extremely noisy areas to protect the public's rights. Section 22.82.010 of the County zoning ordinance identifies three objectives for design review. A fourth objective should be added: Protect the public health and convenience and preserve and restore the quality of quietness in neighborhood areas.

Recommended Noise Levels Compatible With Residential Areas

A considerable amount of evidence has been compiled by the U.S. Environmental Protection Agency which correlates constant noise levels with speech interference, sleep disturbance, and hearing loss. These have been established after extensive before and after tests of people exposed to different noise situations.¹

The level identified for the protection of speech communication is 45 dB(A) within the home. Allowing for a typical 15 dB(A) reduction in sound level between outdoors and indoors, this level becomes an outdoor day-night sound level of 60 dB(A) for residential areas. For outdoor voice communication, the outdoor day-night level of 60 dB(A) allows normal conversation at distances up to 2 meters with 95% sentence intelligibility.

Although speech interference has been identified as the primary interference of noise with human activities, and as one of the primary reasons for adverse community reactions to noise and long term annoyance, a margin of safety of 5 dB(A) has been applied to the maximum outdoor level to give adequate weight to other potential adverse affects.

Therefore, the outdoor day-night sound level recommended as desirable for residential areas is a day-night (L_{dn})² sound level of 55 dB(A). The associated interior sound level within a typical home is 40 dB(A) for daytime periods and 32 dB(A) for nighttime periods.

This latter value is consistent with the limited available sleep criteria. Additionally, these resulting indoor levels are consistent with the background levels inside the home which have been recommended by acoustical consultants as "acceptable" for many years.

¹Environmental Protection Agency, Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety, 3/19/74, pp. 25.

²See glossary for definition of acoustical terms.

FIGURE 7.3
PROPOSED NOISE STANDARDS

EFFECT	LEVEL	AREA
Hearing Loss ²	$L_{eq}(8) \leq 75 \text{ dB}^1$ $L_{eq}(24) \leq 70 \text{ dB}^3$	All areas
Outdoor activity interference and annoyance	$L_{dn} \leq 55 \text{ dB}$ $L_{eq}(24) \leq 55 \text{ dB}$	<p>Outdoors in residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use.</p> <p>Outdoor areas where people spend limited amounts of time, such as school yards, playgrounds, etc.</p>
Indoor activity interference and annoyance	$L_{dn} \leq 45 \text{ dB}$ $L_{eq}(24) \leq 45 \text{ dB}$	<p>Indoor residential areas.</p> <p>Other indoor areas with human activities such as schools, etc.</p>

NOTES:

1. Detailed discussions of the terms L_{dn} and L_{eq} appear in the EPA "Levels" document. Briefly, $L_{eq}(24)$ represents the sound energy averaged over a 24-hour period while L_{dn} represents the L_{eq} with a 10 dB nighttime weighting. $L_{eq}(8)$ represents the sound energy for the loudest eight hours over a 24-hour period. (See glossary)
2. The hearing loss level identified here represents annual averages of the daily level over a period of forty years. (These are energy averages, not to be confused with arithmetic averages.)
3. Relationship of an $L_{eq}(24)$ of 70 dB to higher exposure levels.

The Environmental Protection Agency has determined that for purposes of hearing conservation alone, a level which is protective of that segment of the population at or below the 96th percentile will protect virtually the entire population. This level has been calculated to be an L_{eq} of 70 dB over a 24 hour day.

Source: Bolt, Beranek & Newman, A Background Report on Transportation Noise, Sept., 1974.

The effects associated with an outdoor day-night sound level of 55 dB(A) are:

- o Satisfactory outdoor average sentence intelligibility may be expected for normal voice conversations over distances of up to 3.5 meters;
- o Depending on attitude and other non-acoustical factors, the average expected community reaction is "none" although 1% may complain and 17% indicate "highly annoyed" when responding to social survey questions; and
- o Noise is the least important factor governing attitude towards the area.

Identification of a level which is 5 dB(A) higher than 55 dB(A) would significantly increase the severity of the average community reaction, as well as the expected percentage of complaints and annoyance. Identification of a level 5 dB(A) lower than 55 dB(A) would reduce the indoor levels resulting from outdoor noise well below the normal background indoors. It would decrease speech privacy outdoors to a marginal distance. Little change in annoyance would be made since, at levels below the identified level, individual attitude and life style, as well as local conditions, are more important factors in controlling the resulting magnitude of the intruding noise.

In conclusion, an L_{dn} level of 55 dB(A) is the outdoor noise level in residential areas most compatible with the protection of public health and welfare and with adequate speech communication indoors and outdoors. With respect to complaints and long term annoyance, this level is clearly a maximum satisfying the large majority of the population. However, specific local situations, attitudes, and conditions may make lower levels desirable for some locations. A noise environment not annoying some percentage of the population cannot be identified at the present time by specifying noise level alone.

Figure 7.3 is based on a more detailed description of standards for land uses, both indoor and outdoor, which appeared in Bolt, Beranek & Newman's A Background Report on Transportation Noise. (See Appendix B.)

Criteria for Evaluating New Developments in Noise Corridors (See Figure 7.4). Streets and highways having or projected to have daily traffic volumes (ADT) greater than 5,000 ADT are considered potential noise corridors. An estimate of distances from the centerline of traffic noise produced at 55, 60, 65, and 70 decibels (dBA) has been prepared and is contained in Appendix A. The method for estimating these is contained in the Consultant's report, A Background on Noise, Bolt, Beranek and Newman, September 1974. (See Appendix B.)

Recommended standards will apply to new residential uses. For industrial, commercial, and other uses that are more tolerant to noise than residential use, an increase of 5 decibels in the standards shall be considered. For uses which are extremely sensitive to noise interference (hospitals, outdoor assembly areas, wildlife sanctuaries, religious retreats, etc.), the proposed sites for such uses should be reviewed using the residential noise standards until such time as a more appropriate standard can be determined.

¹ Ibid., pp. D-56 - D-59.

These criteria will not apply to existing development or to proposals having received approvals prior to the adoption of the noise element. See Figure 7.5 for an illustration of the review criteria.

Procedures for Noise Review for New Development Proposals

1. Submitted residential development proposals would be reviewed for their locations with respect to noise corridors -- whether all or any portion of the residential units are to be within the area projected to be a potential noise corridor.
2. Only if the project proposes residential development to be located within the 55 dB(A) noise corridor, will the sponsor be required to engage an acoustical consultant to prepare a site specific noise evaluation to consider topography, natural shielding, and other local conditions specific to the site. This will be undertaken so that a more accurate assessment of potential noise problems and possible mitigation measures can be made.
3. The Review Agency will endeavor to insure that proposed usable outdoors activity areas (communal or private) not be exposed to noise levels from traffic over 60 dB(A) without attempts to mitigate the noise impact. If the project proposes outdoor use areas in locations where potential noise levels would be greater than 60 dB(A), then reasonable mitigation measures may be required, such as: project redesign, construction techniques, or other strategies, where costs of the mitigation are not an unwarranted imposition.
4. In intensive noise zones (areas subject to 65 dB(A) or greater), the placement of buildings or lot configuration which inhibits or reduces the effect of noise may be required. The County should consider initiating rezonings of such parcels as it determines are presently improperly zoned with respect to excessive noise impacts if this noise element is adopted. (Refer to Figure 7.1 and 7.2 for alternative land uses.)

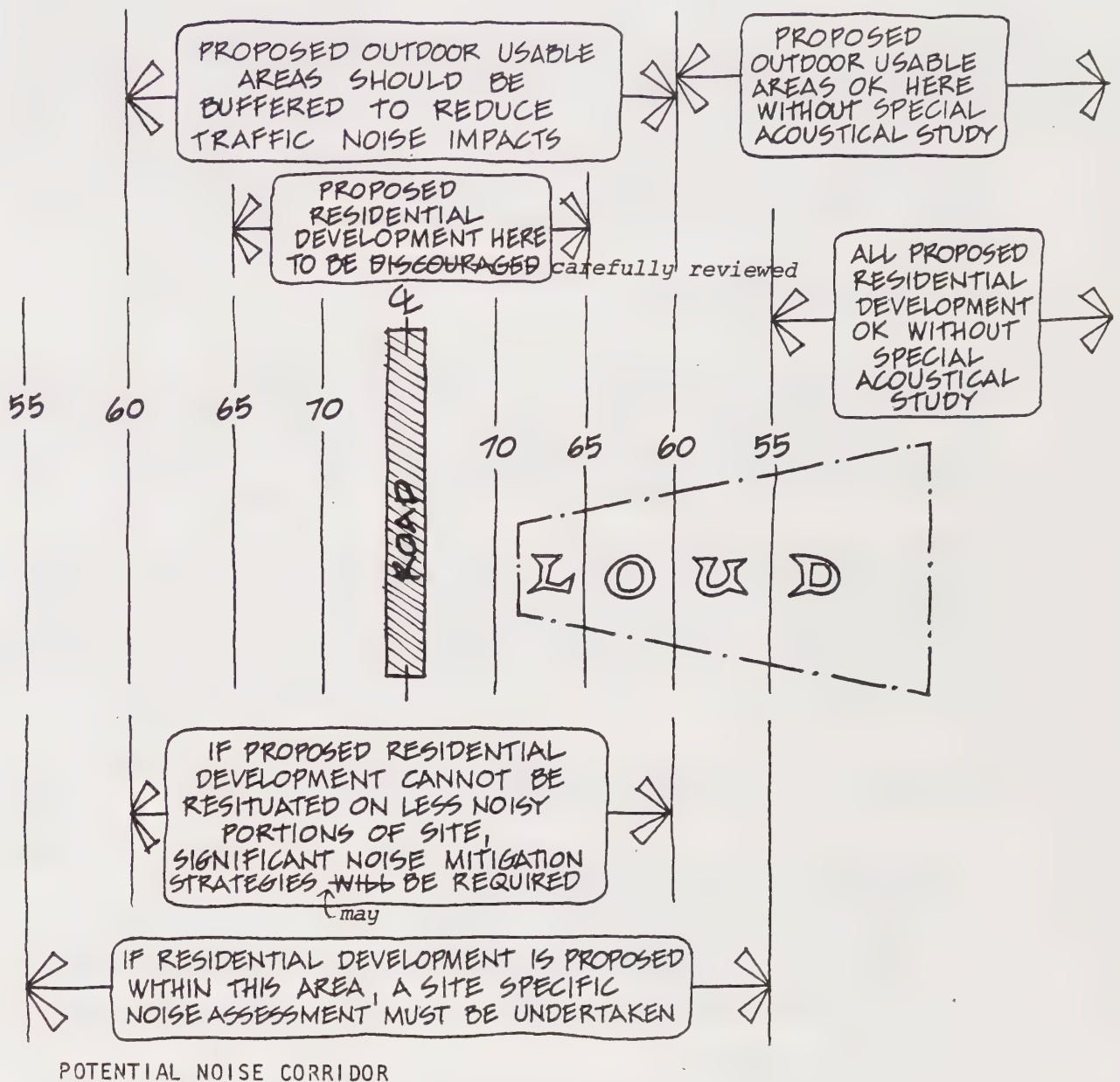
The County will work with responsible transportation agencies in an effort to mitigate the harmful effects of noise on affected properties to the extent that funding and resources permit.

These standards would be used as guidelines for both environmental impact review and design review procedures as provided in Chapter 22.82 Design Review in the County Zoning Code.

E. NOISE ORDINANCE

After an acceptable ordinance is drafted, public hearings by the Planning Commission and the Board of Supervisors should be initiated to consider replacing County Code Section 6.70 for single event, stationary source, and other noises occurring on private as well as public property so that the County's noise reduction effort is not limited to vehicle generated noises exclusively. The ordinance can best be administered by the Environmental Health Inspection Division that now evaluates industrial noises under OSHA guidelines.

Figure 7.5 SAMPLE APPLICATION OF NOISE CONTOUR DATA TO REVIEW RESIDENTIAL DEVELOPMENT PROPOSALS



KEY

- L** = Lot configuration or building placement should inhibit or reduce the effect of noise.
~~LIMIT OR DISCOURAGE RESIDENTIAL USAGE~~
- = ONLY AFTER STUDY & ANALYSIS WILL RESIDENTIAL OR OUTDOOR USES BE PERMITTED
- U** = USABLE FOR OUTSIDE AREAS WITH NO STUDY REQUIRED, STUDY REQUIRED FOR RESIDENTIAL
- D** = DEVELOPMENT PERMITTED WITH NO STUDY REQUIRED
- 60** Ldh VALUE NOISE CONTOUR (distance from road Q based on ADT Volume on road)
- ROAD** MUST HAVE 5000 ADT (Developments proposed adjacent to roads with less than 5000 ADT are not subject to this criteria)
- []** ILLUSTRATIVE VACANT PARCEL PROPOSED FOR RESIDENTIAL DEVELOPMENT

F. NOISE INSULATION

The County should assist property owners of existing units who wish to meet the noise insulation requirements of CAC Title 25 for new units (see Appendix D) by providing technical resource assistance, inspection, and certification of compliance after noise attenuation devices are installed. This program can best be administered by the Building Inspection Department with assistance from Environmental Health Inspectors. A reasonable fee to cover the cost of this program should be assigned based on actual case cost experience.

F. MONITORING PROGRAM

Annual monitoring and evaluation of the costs and effectiveness of the specific noise abatement strategies should be carried out and recommendations submitted for future work based on new information and research. The County should consider modifying the recommended standards if cost of compliance is high and cannot be equitably distributed to those causing the noise impacts.

Research about the effects of noise on people is now going on at the Federal level. This knowledge can help improve the public's ability to avoid and abate noise. Legislative requirements for the design and use of noisy products (presently exempt from local controls) offers the potential of reducing noise at its source -- the most effective approach. These research programs need to be followed to determine their effects on noise in the environment and their usefulness for enforcing community standards.

There are numerous Federal noise research programs which are in progress or have been completed. Some of them are included in the following list:

- o Improvement of noise measurement techniques, data reduction, and analysis (Department of Transportation) (DOT)
- o Jet engine noise and its abatement (DOT)
- o Development of noise-monitoring systems for airport environs (DOT)
- o Jet exhaust noise (National Aeronautics and Space Administration) (NASA)
- o V/STOL noise characteristics (DOT)
- o Development of supplemental engine equipment or devices to suppress noise (NASA)
- o Tire acoustics (DOT)
- o Internal combustion engine noise (emphasis on the diesel) (DOT)
- o Attenuation of noise by vegetation (United States Department of Agriculture) (USDA)
- o Effects of noise on humans and wildlife (Health, Education and Welfare and USDA)
- o Acoustical performance on buildings (Housing and Urban Development)

¹Environmental Protection Agency, comp., Summary of Noise Programs in the Federal Government, op. cit., (See programs under NASA, DOT, USDA, HEW).

The requirements of the Federal Environmental Protection Act and the California Environmental Quality Act for reporting on noise in the vicinity of new developments provide a practical data source for monitoring the noise environment in Marin. Standardizing the measurement and reporting format guidelines would be a help in comparing individual projects and working toward a consistent noise source useful by many jurisdictions.

PART 8. ENVIRONMENTAL HAZARDS

I. BACKGROUND

A. PURPOSE

This Environmental Hazards Element to the Marin Countywide Plan examines some of the special problems of developing in Marin's unique environment and proposes strategies to insure that Marin remains as safe as well as an environmentally attractive setting.

The text is arranged to:

- o Provide an introduction to the environmental setting of Marin County, in geologic, seismic and other hazard terms.
- o Describe the relationships of these natural hazards.
- o Propose policies in the context of Countywide Plan goals, designed to lessen costs and dangers of these hazards.
- o Append and reference important technical and background information.

The objectives of this element are to reduce potential injury or loss of life and to lessen possible property damage. County initiated measures to lessen risk to human life and property should focus upon:

- o Areas identified as known or suspected greatest natural hazard areas;
- o Areas of greatest population concentration; and
- o Those hazards which can be avoided or mitigated for new development through improved land development practices.

Why an Environmental Hazards Element?

This element has its origin in State law and much recent public concern. State law mandates the inclusion of a seismic safety and safety element as part of every local government's adopted General Plan.

¹ Government Code Section 65302 (65302.1) - A seismic safety element consisting of an identification and appraisal of seismic hazards such as susceptibility to surface ruptures from faulting, to ground shaking, to ground failures, or to the effect of seismically-induced waves such as tsunamis and seiches. The seismic safety element shall also include an appraisal of mudslides, landslides, and slope stability as necessary geologic hazards that must be considered simultaneously with other hazards such as possible surface ruptures from faulting, ground shaking, ground failure and seismically induced waves.

Beyond this mandate however, there are compelling reasons for citizens and decision-makers to concern themselves with identifying and ameliorating hazards inherent in Marin's natural setting. Marin homeowners, developers and government officials experience real hazard problems, often with significant property losses and occasionally with danger to people in their daily activities.

There are frequent small landslides, differential ground settlements and soil shrinkages causing foundation cracking, road bucklings, utility breakages and sometimes complete wreckage of structures. In addition to this regular toll exacted by the environment in response to inadequately planned or engineered projects, there are unavoidable sudden dangers of flood or wildfire. These too, draw most of their threat from the lack or inadequacy of land planning of an earlier time. Looming over all is the ever present potential for another major or great earthquake as in 1906, with the possible difference that, a now vastly more developed, eastern Marin might be devastated as was San Francisco then.

Response to Hazard - How Much Risk at What Cost?

While these costs and dangers are impressive, they can in part be avoided altogether, almost always be reduced and, in the case of major earthquakes, at least be well prepared for.

Varying degrees of protection can be taken to safeguard against the hazards associated with the environmental conditions discussed in this element. The costs necessary to insure against damage can be very great and judgements about the risk entailed must include a weighing of the consequences for not undertaking such measures. Many of the recommendations which take the form of policies in Part IV are measures which the County, as a rule, implements at the present time. Some of the measures are not formalized, and as such, are not adopted policy of the County. Implementation techniques for those measures are suggested together with a description of the implications of the review requirements and expenditure of staff time. The County decision-makers, the Planning Commission and Board of Supervisors, will be the ultimate judges of the questions of "who pays" and "how much risk is too much risk". Every year brings us a greater knowledge of the sciences which explain the complex phenomena and earth processes involved in these environmental hazards; each year our ability to assess risk and develop measures to preclude or mitigate such risk increases. The policy recommendations attempt to reflect the evolution of the "state of the art" and they demand a sophisticated degree of case by case evaluation.

Environmental Hazards

There are many possible environmental hazards. Seismic and non-seismic geologic hazards and fire and flood are specifically included in this element because:

A safety element for the protection of the community from fires and geologic hazards including features necessary for such protection as evacuation routes, peak load water supply requirement, minimum road widths, clearances around structures, and geologic hazard mapping in areas of known geologic hazard.

- o They have all occurred in Marin in recent history, sometimes with devastating effect, and they all could occur again in the future, and
- o These topics are mandated by state law to be part of each jurisdiction's adopted general plan.

Environmental hazards that are not included in this element, including vector related health hazards, air pollution, water supply contamination, noise, airport landing and takeoff safety zones, and others which are not likely to significantly impact Marin, have been addressed elsewhere in the Countywide Plan, or are not required by the state for inclusion in a general plan.

II. NATURAL HAZARDS

A. SEISMIC HAZARDS

Faults

Marin County occupies a geologic setting that is both complex and dynamic. The County lies astride the San Andreas fault, an active rupture between two great plates of the earth's crust. For many millions of years the Pacific Plate, which includes Point Reyes Peninsula, has been migrating northwest, sporadically jerking and sliding past the North American Plate along this rupture. As a result, different bedrock sequences that originated many miles to hundreds of miles from each other have been juxtaposed on opposite sides of the fault, which follows the trough-like Olema Valley and Tomales Bay (see Figure 8.1).

Other than the San Andreas, no active faults, established as potential sources of earthquakes, are known within Marin County. However, most of the County is sandwiched between two major active faults zones, the San Andreas and the Hayward, both of which have generated great earthquakes during the 200 years of our recorded history of the area.

The greatest Bay Area earthquake about which detailed quantitative information has been established is the April 18, 1906 shock on the San Andreas fault, which has traditionally been rated at 8.25 magnitude on the Richter scale. This would be the key seismic point of historical reference for Marin in any event, but the more so since its epicenter was located in the vicinity of Olema in western Marin.

San Francisco suffered well known spectacular property damage and some 450 direct or indirect deaths from that earthquake, while Santa Rosa and other more built-up urban areas also experienced substantial property losses to a lesser extent. Marin, being sparsely inhabited, particularly in the rural areas along the San Andreas fault itself, experienced relatively moderate property losses and only 2 deaths.

However, along the fault zone where settlement and buildings were either all somewhat concentrated, multi-storied, or located on alluvium, damage was severe - particularly in Bolinas and Tomales. In the towns of east Marin, some 15 miles from the fault zone, damage was characteristically from fallen chimneys and

Figure 8.1



FAULT TRACES IN MARIN COUNTY
AND ADJACENT AREAS

cracked walls - over 1200 chimneys reportedly fell - although some larger structures, including the San Anselmo Theological Seminary, were more extensively damaged.

West Marin along the San Andreas fault zone experienced some of the most pronounced natural earthquake phenomena, that was felt along the 300 miles of California that were affected. These included the maximum horizontal displacement - 21 feet near the head of Tomales Bay - reported anywhere in this earthquake. These ground displacements are described in Appendix I.

The 1906 earthquake was the last significant seismic event with its epicenter located in Marin or which produced significant damage or ground movement phenomena in Marin, although minor effects of moderate Bay Area shocks epicentered elsewhere were felt in parts of Marin.

While the San Andreas is the only proven active fault in Marin County there is one other local fault zone - Burdell Mountain - for which some evidence of geologically "recent" (last 10,000 years) activity exists. This is found primarily in the upland areas, and particularly in some youthful appearing topographic features northwest of Rancho Olompali. This evidence is discussed in some detail in the 1975 report on geologic hazards in the Novato area prepared by the State for Marin County (see references). While there is as yet no definitive determination that this is an active fault, the evidence is suggestive enough to be kept in mind when developing land-use policies in the vicinity of the zone.

Ground Shaking

In terms of human and economic losses, seismic shaking is the most significant factor contributing to the overall earthquake hazard. Shaking contributes to losses not only directly through vibratory damage to man-made structures but also indirectly through triggering of secondary effects such as landslides or other modes of ground failure. This, an important element in attempting to classify areas by seismic risk, is the geographical assessment of potential ground shaking. Figure 8.2 identifies areas most susceptible to ground shaking in the event of a future earthquake.

Marin experienced its greatest ground shaking damage in the 1906 earthquake, which, unlike the damage resulting directly from ground displacement, was prevalent in eastern Marin as well as along the San Andreas fault zone in the west. Apart from the collapse of most chimneys, the State Earthquake Commission's report of that event generally did not specify whether damage in West Marin was from shaking or the more impressive shifting of structures from their foundations by the displaced or heaving earth. Notable among the shaking damage in the west were the collapse of a stone church and other stone buildings in Tomales, the crumbling of the ocean bluffs at Bolinas and the tipping over of a railroad engine and three cars at Point Reyes Station.

While no ground displacement was reported in eastern Marin in 1906, damage from ground vibrations was common though usually moderate or light. Very widespread chimney and some stone wall collapse was reported as well as some cases of wall cracking. San Rafael and Sausalito experienced the greatest damage.

Figure 8.2



AREAS MOST SUSCEPTIBLE
TO SEVERE GROUND
SHAKING.

The post-1906 moderate Bay Area earthquakes with epicenters elsewhere were felt in Marin, but with maximum intensities (modified Mercalli) of only V or VI and usually very slight damage. The strongest shaking effects experienced since 1906 were localized reports of intensities V and VI during the March 1957 Daly City earthquake (Richter magnitude 5.3). In that shock, a few instances of moderate damage were reported in Sausalito, Mill Valley and San Anselmo, but most reports were of slight damage, or of strongly felt motion and loud sounds frightening residents. To convey a fuller picture of what this and other seismic events felt like in Marin, excerpts from the U.S. Coast and Geodetic Survey Abstracts of Earthquake Reports should be consulted.

The predominant sources of earthquake damage to be expected in the uplands of Marin County are from landslides and fires triggered by the shaking.

Because many streets in the hills of central and southeastern Marin County traverse upslope landslide deposits, and streets are the usual routes of underground utility pipes, it should be expected that a great earthquake generated in the north Bay Area will result in the disruption of some transportation routes and the rupturing of water, gas, and sewer lines as a result of earthquake-induced landslides.

Fire is also likely to be a destructive by-product of a great earthquake in this area--perhaps by far the worst if the earthquake occurs during the dry season. Fire was the significant source of property damage in the San Francisco 1906 earthquake. It should be expected that many fires would be ignited in Marin County from a major or great earthquake. These fires would probably be caused by gas appliance pilot flames which would ignite the gas escaping from ruptured pipes, especially from topheavy water heaters which could come loose from their pipe connections.

Tsunami and Seiche Effects

Tsunamis are large ocean waves generated by rapid changes in elevation of large masses of earth and ocean, such as occurs with vertical faulting beneath the ocean. Tsunami waves may reach fifty feet in height on unprotected coasts, and one on record (Japan, 1896) killed nearly 30,000 people and destroyed over 10,000 homes. In 1964, the tsunami generated by the "Good Friday" Alaska earthquake resulted in deaths of eleven people in Crescent City, 4 in Oregon and 107 in Alaska. Tsunamis have been recorded along with tides in San Francisco Bay by the U.S. Coast and Geodetic Survey (a function now of the U.S. Geological Survey). From these data, a 1970 study by R.L. Wiegel states that at least 19 tsunamis were recorded at the Golden Gate tide gauge between 1867 and 1969. The highest wave that was recorded was about 7-1/2 feet in height at Fort Point; amplitude, or greatest elevation of the water above the existing tide at the time was 3-3/4 feet. The height of tsunamis vary from place to place. Comparisons of tsunamis at Fort Point and areas of Marin indicate that wave height will gradually diminish as it moves up the bay, so that at Paradise Cay wave height will be about half that of Fort Point and Lime Point, and beyond Paradise Cay it will be even less. Areas most likely to be inundated are artificially filled marshlands that are still below sea level, unfilled marshlands, and tidal flats (see Figure 8.3).

A 1975 study by Garcia and Houston indicates tsunamis of a 7 foot height may occur on the average of once every 100 years. Such tsunamis can be disastrous to people along the shoreline, and currents associated with them can damage moored

Figure 8.3



boats and marinas. For example, the 1964 tsunami caused little damage in San Francisco Bay as a result of inundation, but yacht harbors in San Rafael and Sausalito suffered a total of some \$275,000 damage from currents generated by the tsunami (San Rafael Independent Journal, 3/25/64).

B. NON-SEISMIC GEOLOGIC AND OTHER NATURAL HAZARDS

Marin County, and particularly its eastern, suburbanized corridor has two contrasting topographic settings that define sharply contrasting geologic conditions and stability problems which exist independent of any triggering seismic event. These are:

- o the steep hills and ridges which are subject to landslides and downhill creep.
- o the bay plains, marshlands and mud flats subject to subsidence and differential settlement.

It should be noted that in the absence of a major earthquake, these conditions are the source of most of the losses due to natural hazards in Marin County. In addition, this section on non-seismic hazards will consider in some details, Wildfire and flood hazards.

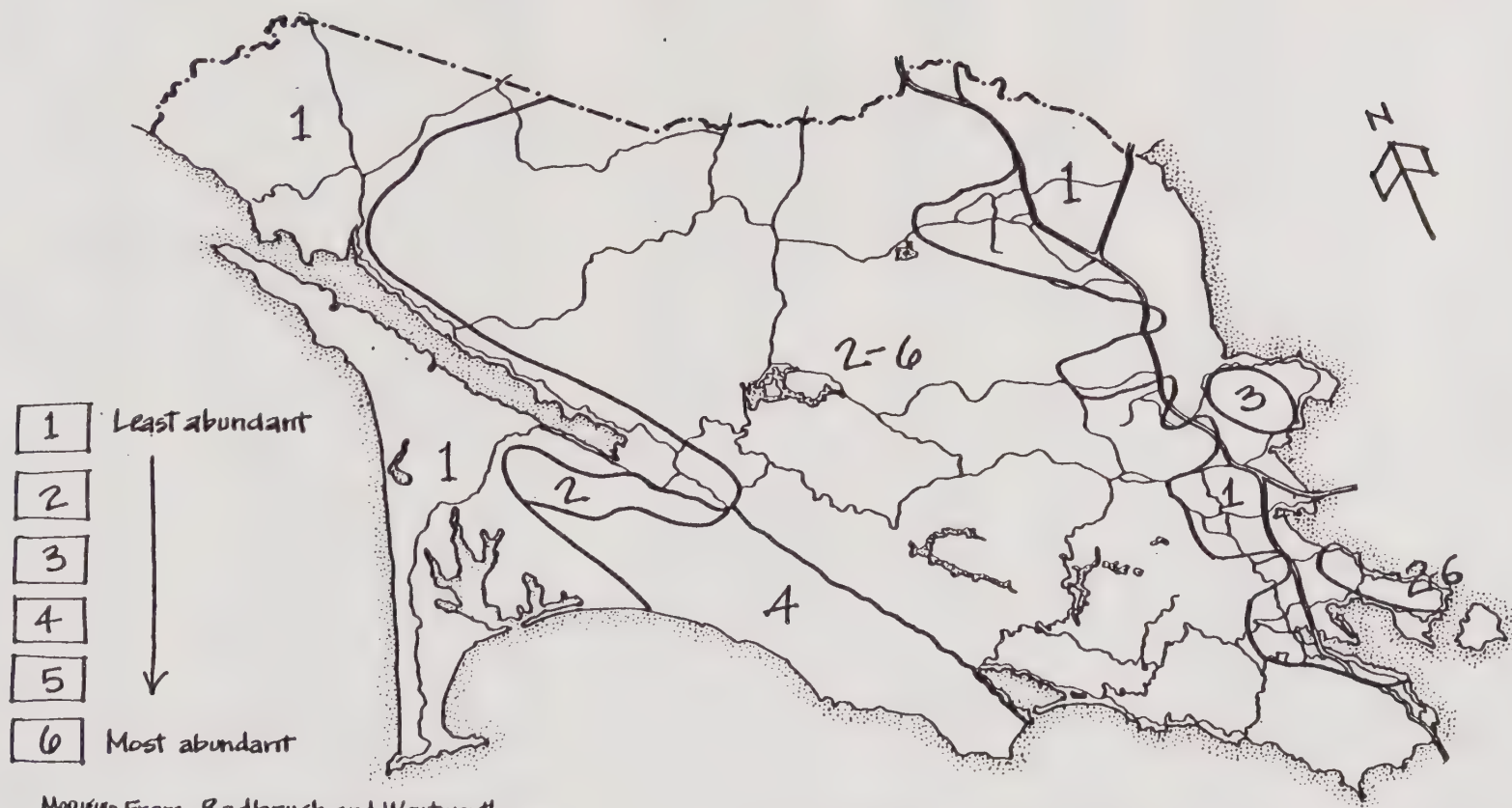
Landslides are not random--they occur in certain areas for specific and relatively predictable reasons, and not in other areas. Their likelihood should be accounted for in land use planning and in site development. Landslides and swelling soils constitute the principal geologic hazards to structures, roads and utilities in the uplands of Marin County. Both are widely but unevenly distributed in the area, and both are related to the bedrock geology and the surface soils and colluvium derived by weathering of the bedrock. Figure 8.4 illustrates the relative abundance of landslides in Marin County.

The hills and ridges of eastern Marin sharply differ from place to place in the strength and relative stability of the rock formations and other geologic materials that underlie the surface. Even without knowing the identity of the underlying materials, these differences in strength and stability can generally be inferred by the presence, absence, or relative abundance of landslides on the various slopes. Where landslides are abundant, the slopes are likely to be inherently unstable; where landslides are few or lacking on the steep slope characteristic of eastern Marin, the slopes are relative stable. Even in those areas where very steep natural slopes have relatively few landslides, indiscriminate deep cuts, both for streets and house sites, can be expected to cause some serious and long-term problems. Adversely dipping fractures and bedding planes that are a part of the structure of the underlying rock may become planes of movement when undercut.

Landslide deposits are widely but unequally distributed in eastern Marin County. These surficial deposits of rock or soil materials have separated from their original position on slopes and have moved downslope under the influence of gravity. They exhibit characteristic topographic expressions that result from the downward and outward displacements of the landslide masses. Prominent topographic features that commonly develop in landsliding include scarps, terracelike benches that commonly have topographic sags or depressions on them, hummocky or disrupted ground surfaces, and anomalous drainage patterns.

Figure 8.4

8-10



Modified From Radbruch and Wentworth
USGS Basic Data Contribution, 1971

ESTIMATED RELATIVE ABUNDANCE
OF LANDSLIDES IN MARIN COUNTY

Figure 8.5 illustrates basic types of landslide movements and their topographic expressions, with names often applied to them. Most landslide deposits in Marin County are debris flows but many or most of these are composite in their development. Typically such landslides originate as rotational slumps, but disintegrate with further movement into debris flows. On unstable slopes many such landslides commonly merge to form aprons of these deposits in which individual landslides are difficult or impossible to distinguish.

Where their topographic expressions have been modified or masked by erosion, forest cover, or grading operations, most landslide deposits can be identified from exposures in gullies, road cuts, or other excavations. This is because they are typically composed of chaotic mixtures of angular rock fragments, of various sizes and orientations, that are embedded in an unconsolidated, fine grained, clay-rich matrix. One type of landslide, the debris avalanche, leaves a scar behind as the only evidence of its occurrence that can be recognized a year or more after the event. The source of this type of fast moving landslide is limited to the regolith (soil and colluvium), never bedrock, and the avalanche mass is so fluid that it flows to the base of the slope, or beyond, and spreads out as a thin coating of mud over the surface.

A typical soil debris avalanche in Marin County involves a few hundred cubic yards of soil and colluvium and is the result of total saturation of a part of the regolith on a hillside. In general, it occurs only in sandy and silty soil that has little clay content. In southeastern Marin County such soils form principally on sandstone. (The highly fluid nature of these flows leads them to follow gulches and creek canyons to the base of the slope; so that the mouths of such gulches and canyons at the base of sandstone ridges, such as Big Rock Ridge and San Pedro Ridge, are highly vulnerable to such avalanches.

During the last 20 years, they have occurred abundantly in Marin County when about 4 inches or more of rain has fallen in 10 hours or less. In some areas, however, they have occurred during normal rainfall as a result of excessive water introduced into the susceptible hillsides by domestic water use. Houses in the County have suffered damage or destruction from these avalanches both by being struck by the fast moving flows and by being undermined because foundations were embedded in the soil that liquified, rather than in the bedrock beneath the soil.




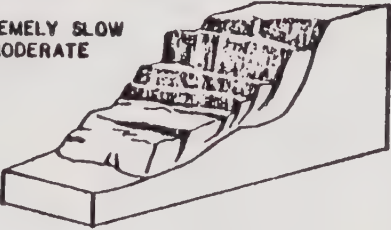
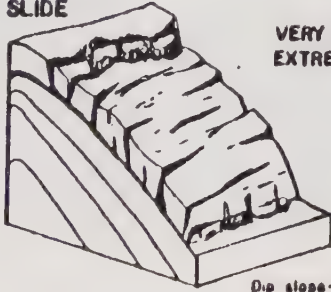
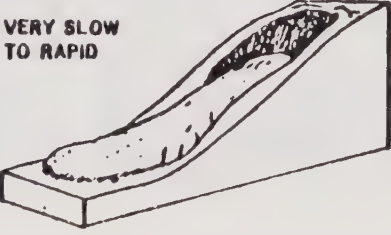
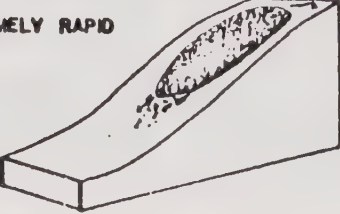
Important elements in the determination of the potential stability of a landslide deposit include its position on the slope, the angle of the slope, and the state of consolidation and other physical characteristics of the deposit. Though introduced from time to time as evidence of relatively higher stability of landslide deposits, old age, apparent or actual, has little significance regarding the potential stability of such deposits.

Most landslide damage in Marin County has taken place within pre-existing landslide deposits as a result of continuing or renewed movement within them. The great majority of these damaging landslides are soil and rock debris flows developed on slopes underlain by Franciscan melange. Their heaving soils and slow downslope movements strain houses by cracking foundations, and crack and disrupt streets and utilities. Most of the landslide deposits that show on our maps are of this type.

Soils that swell when wet and shrink when dry also cause considerable damage to structures, streets, and some areas of Marin County. These soils are clay-rich,

Figure 8.5

TYPES OF LANDSLIDES COMMON TO MARIN COUNTY

	BEDROCK	UNCONSOLIDATED MATERIAL	
FALLS	ROCK FALL  EXTREMELY RAPID <small>Control by joints or other planar weaknesses. Support removed by erosion or quarrying.</small>	SOIL FALL  VERY RAPID <small>Undercutting of bank.</small>	APPROXIMATE RATE OF MOVEMENT EXTREMELY RAPID 3m/second VERY RAPID 0.3m/minute RAPID 1.5m/day MODERATE 1.5m/month SLOW 1.5m/year VERY SLOW 0.3m/5 years EXTREMELY SLOW <small>(modified from Cooke and Doornkamp, 1974)</small>
SLIDES	ROTATIONAL SLUMP EXTREMELY SLOW TO MODERATE 	ROTATIONAL SLUMP EXTREMELY SLOW TO MODERATE 	
	BLOCK SLIDE  VERY SLOW TO EXTREMELY RAPID <small>Dip slope—control by bedding planes or shear zones.</small>	DEBRIS FLOW VERY SLOW TO RAPID 	
		DEBRIS AVALANCHE EXTREMELY RAPID  <small>Virtually no debris left at site of scar.</small>	

composed largely of mortmorillonite, an expansive clay mineral. In southeastern Marin County these soils form in areas underlain by Franciscan melange where the fine-grained matrix of that unit is abundant. Such soils are dark gray in most places. In late summer they exhibit wide desiccation cracks (1 to 3 inches wide in many places), and at this time the soil is literally rock hard. Swelling of the clay minerals closes the cracks in the wet season, and the soil then is plastic and very weak. The forces exerted during expansion and contraction are sufficient to heave and distort buildings, and to crack shallow foundations and pavements. Such soils should be recognized prior to construction, and special engineering methods used to help reduce the stresses on buildings. The expansion-contraction characteristic of these soils causes slow downslope creep of the surface where they lie on a slope, thus adding to their potential for disruption of structures and facilities. These soils are abundant in most landslide deposits that lie on melange slopes and are the principal reason for the inherent instability of such slope deposits.

Subsidence and Differential Settlement

Developments on fill placed upon the marshlands and mud flats of San Francisco Bay are susceptible to several severe types of stability problems. Such developments in Marin County have been the cause of great distress to individual citizens, as well as business people, and great public expense for many years. This is primarily because the continuing subsidence of fills results in intermittent flooding of residential neighborhoods, commercial and industrial areas and because differential settlement of fills damages structures, utilities, and roadways.

As discussed in Appendix I in more detail, the bay mud that underlies marshlands and mud flats (and many existing development on fills placed upon such lands) is an unconsolidated, jelly-like material that is both highly compressible and subject to lateral flow when loads are placed on it.

The settlement of fill on bay mud is well exhibited in Sausalito in a portion of the World War II shipyard development adjacent to Bridgeway and Harbor Drive, across from the "Big G Market" parking lot. In about 1940, clusters of pilings were driven through fill and underlying bay mud to help support a huge warehouse-like sub-assembly building and a concrete pad that served as its floor. The building has been removed, and the partially collapsed floor displays the amount of settlement that has taken place. Deep pilings are generally relatively stable in bay mud, and the small pads of concrete directly supported on the clusters of pilings now stand about 3 feet above the unsupported concrete surfaces that have settled with the fill. In places large broken portions of slabs are tilted up to their anchors on the pilings.

Fire Hazards

For the purposes of the Seismic Safety and Safety Element, fire hazards will be dealt with on the basis of structural hazards and wildland fire hazards.

Structural Fire Hazard. Structural fire hazards are those that exist with residences, business, industry and other man-made structures. Structural fires are a result of improper design or use of materials, inadequate or nonexistent fire detection or suppression equipment and poor building maintenance practices.

Structural fires pose a greater threat to life and property than do wildland fires. Most human activity takes place within structures devoted to homes, employment, socialization and shopping.

All aspects of fire prevention and suppression require vigilance on the part of public officials and the public in order to maintain an acceptable level of risk. Efforts on the part of the private sector to prevent fire by placing suppression devices within buildings help reduce the incidence of fire, loss of life and property damage. From a fiscal standpoint, more emphasis needs to be placed upon the property owner's responsibility for fire proofing, fire detection and/or suppression equipment systems in homes, offices, stores and factories. Owner responsibility for fire protection could, in the long run, lower government costs.

Wildland Fires. Wildland fires are started by two general causes: lightning and people (a small number of other fires are caused by a few miscellaneous agents not related to people). Once started, fires burn according to a set of chemical and physical laws. Those factors most important to fire behavior are fuel (in the form of wildland vegetation) plus man's structural improvements, topography, and weather. Most of Marin's wildlands have experienced critical fire weather conditions and undoubtedly will in the future.

Wildland fire hazards exist in varying degrees over approximately 90% of the County (open space, parklands, and agricultural areas). Hazards arise from a combination of climatic, vegetative, and physiographic conditions. Although wildland fires have always occurred naturally from lightning, people are responsible for 9 of 10 wildland fires today.

Flood Hazards

Flood hazards as addressed in this element consider several causative processes: stream overflow, flood due to bay tidal activity, earthquake related flood, and dam failure flooding. On file in the Marin County Department of Public Works and Planning are maps of the 100-year floodplain (one percent chance of flood in any one year) prepared by for the U.S. Department of Housing and Urban Development as part of the National Flood Insurance Act of 1968 and the Flood Protection Disaster Act of 1973. These maps identify areas of naturally occurring flood and flood due to bay tidal activity. Areas subject to earthquake-generated tidal waves - tsunamis have been identified by USGS and are on file in the Planning Department. Tsunami hazards are discussed in detail under Seismic Hazards in Section A. Areas subject to inundation as a result of dam failure at Stafford Lake, Phoenix Lake, Nicasio Reservoir and Alpine and Peters Dams have been prepared by various agencies to meet requirements of the California State Dam Safety Act of 1972.

These mapped expressions of flood hazard areas will be subject to some form of regulatory procedures to reduce the risk of property damage, disease and loss of life. Recommendations to reduce risk from flood hazard are an important aspect of a safety element. Figure 8.6 provides a generalized countywide flood hazard map.

Natural Flooding. The numerous creeks and waterways in Marin County are usually subject to some form of flooding during the annual wet winter rain season. The degree of flooding is dependent upon topography, vegetation, the duration and intensity of rain and consequent stormwater runoff.

Figure 8.6



FLOOD PRONE AREAS

Stormwater runoff, which exceeds the capabilities of physical channel characteristics of a stream, results in the localized flooding. Flooding is a natural action which brings large amounts of water to flat valley floors. The floodplain also deposits sedimentary soils from erosion in those valleys.

The floodplain is a natural portion of any waterway. The relative infrequency of a waterway's use of its floodplain should not obscure the fact that the floodplain is a physical portion of the waterway. By delineation of the floodplain, appropriate land uses may be accommodated while high risk land uses may be avoided.

Flooding is only considered a problem when it affects people - and it affects people because development has been allowed in flood-prone areas without full consideration of environmental, economic and social impacts. Flooding, though most drastic, is just one of the problems resulting from development in floodplains. The riparian environment is severely damaged or destroyed by intensive human encroachment. Aside from the danger of flooding, typical problems when building encroaches on the floodplain include high water tables, poor drainage and high erosion.

The historic development and growth of cities in Marin has followed a classic course, i.e., along flat bottom lands subject to seasonal inundation. Portions of Mill Valley, Tiburon, San Rafael, Novato and the Ross Valley usually suffer some flood damage annually. Residential development is continuing to occur in floodplain areas in Marin. Floodplain and marshland along San Pablo Bay has witnessed recent developments such as Bel-Marín Keys, Bahia and Paradise Cay. Development pressures along San Pablo Bay for commercial/industrial uses as well as residential development will continue. Conflicting policies of accommodating growth while maintaining environmental and public safety policies will be addressed by the Planning Commission and Board of Supervisors as development projects are proposed.

The Corte Madera Creek watershed drains the Ross Valley and has been the subject of a Corps of Engineer flood control project since 1962. A four-phase project of dredging and concrete channelization to reduce flooding was proposed - three phases have been completed. The fourth phase, which proposed 3,000 feet of continued concrete channelization, was halted by local citizens who requested that alternatives to channelization be considered. A recently completed study by local citizens, the Town of Ross, County officials, Army Corps of Engineers and a consulting team recommended limited tree and shrub removal, rip-rap in areas of extreme erosion, raising several existing residences, the construction of low flood control walls and a system of higher "wing" walls (2-1/2 to 7-1/2 feet in height) to achieve flood protection without construction of 3,000 feet of concrete channel. This progressive method of flood protection in an existing developed area may be viewed as a model for future flood control projects.

Historically, flood problems caused by human encroachment into the floodplain and/or waterway have been met by the construction of flood channels, dikes and multi-purpose dams, methods which further alter the natural waterway system. In Marin County, floodplain zoning (which precludes construction and/or construction which increases the flood problem) has been applied to an area along State Highway #37, southeast of Novato. One of the primary recommendations of this element is the evaluation and consideration of alternatives to construction-related methods to control flooding and to promote innovative regulatory methods which enhance

riparian environments. Floodplain zoning may be a useful tool to preclude development which exacerbates flood problems, while other methods are developed.

The Marin County Flood Control and Water Conservation District was established by the California State Legislature in 1953 to deal with drainage and flood problems. At the present time seven flood control zones are in existence. They are: Novato Creek, Richardson Bay, Bel Air, Stinson Beach, Rafael Meadows, Santa Venetia and Ross Valley. By resolution of the Board of Supervisors, specific drainage systems for three of the seven flood control zones have been identified as major systems requiring the District to exercise its primary efforts and resources toward the efficient control of these systems (see Appendix I). The Flood Control District has two ordinances with which it deals. These are Ordinance #2025, which allows the district to enforce creek encroachments and debris control within the incorporated city limits, and Ordinance #1698, which involves encroachments into the right-of-way on Corte Madera Creek. All other code enforcement relative to creeks are a part of Marin County Code, enforced by the Department of Public Works. Flood Control as a part of DPW staff assists in that enforcement. Public Works review, however, extends to all developments within the unincorporated area of the County.

California Dam Safety Act of 1972 (SB 896). The Marin County Office of Emergency Services has developed a Dam Failure and Evacuation Plan (DAMEVAC) to implement the provisions of the California Dam Safety Act. The Act requires preparedness against the sudden failure (partial or total) of any dam that could result in death or personal injury. Further, the Act requires that areas of potential flooding in the event of a dam failure be identified on inundation maps, and that procedures be developed for emergency evacuation and control of populated areas within identified flood zones. Also, other statutes and regulations pertaining to the supervision of dams and reservoirs define which dams will be considered in dam failure plans and what the criteria are for defining the boundaries of potential inundation zones. See Figure 8.7 for areas subject to inundation as a result of dam failure. More detailed maps are available through the Office of Emergency Services.

The provisions of the Dam Safety Act apply to those dams and populated areas in Marin County listed below. The DAMEVAC plan establishes procedures for evacuation and control of populated areas below these dams, and for subsequent reentry into these areas.

<u>DAM</u>	<u>EVACUATION AREA</u>
Stafford Lake Dam	Novato
Peters Dam (Alpine & Kent Lakes)	Samual P. Taylor Park Lagunitas & Point Reyes Station
Phoenix Dam	Ross, San Anselmo, Kentfield, Larkspur, Corte Madera and San Rafael
Nicasio Dam	Point Reyes Station

Figure 8.7



AREAS SUBJECT TO INUNDATION
FROM DAM FAILURE

The County of Marin and Marin Operational Area Emergency Plan. The Emergency Plan was developed for use as a guide for the effective coordination of emergency operations in Marin County and its political subdivisions which, along with certain nongovernmental agencies, comprise the Marin Operational Area.

The Emergency Plan contemplates that, while the probability of nuclear war are remote, emergency preparedness for this eventuality is a necessity, and that natural disasters, major accidents and incidents are more likely to strike without warning, causing undue suffering, loss of life and property damage involving unknown numbers of our citizens. A viable emergency plan to provide operational and organizational guidance, therefore, is an absolute requirement if we are to minimize the effects of these disasters.

The purpose of the Emergency Plan is to provide guidance for maximum attainment of protection of life, property and community facilities in the event of a disaster. It recognizes that effective response during war and peacetime emergencies is inherent responsibility of government. Accordingly, this Plan provides for organization of Emergency Services, and the management of critical resources in the County of Marin and Marin Operational Area, and contains guidance for fulfillment of those responsibilities.

III. STRUCTURAL HAZARDS

While structural damages resulting from significant earthquakes are effects rather than causes, it is useful to view response characteristics of various structure types as a class of hazards in themselves. This approach is warranted by the innate hazard potential of certain structural features or standards. A discussion of structural damages due to non-seismic landslides, subsidence, flood, etc., is found in Appendix I.

Uniform Building Code

In California counties, the Uniform Building Code, specifically its sections relating to earthquakes, functions as the basic set of minimum requirements for seismic shaking and ground displacement resistance in all new structures.

Other Codes Regulating New Construction

The Field Act, adopted after the Long Beach earthquake of 1933, consists of very detailed and rigorous specifications for construction materials, minimum earthquake loads and provisions for supervision of construction of all public school buildings to these standards.

Although little new public school construction is expected in Marin in this period of shrinking school enrollments, the provisions of the Field Act, as embodied in the State Education Code and Titles 21 and 24 of the California Administrative Code are ample to prevent school buildings themselves from posing hazards. Similarly, the California Health and Safety Code requires a detailed review of hospital plans and supervision of their construction.

The Excavation, Grading and Filling Ordinance (Marin County Code Section 23.08) may signal the presence of geologic hazards to future building or development sites if geologic reports (Sec. 23.08.050 4d) are required and may have the effect of avoiding or mitigating these hazards.

IV. POLICIES

The following objectives serve to guide the development of the County in a healthy and balanced environment.

- o Closely regulate development in areas prone to fire, flood and landslides;
- o To assure public safety in fault zones, flood plains, and severe geologic risk areas, regulate the construction of concentrated or hazardous uses, such as schools, hospitals, other institutions, high density housing, or reservoirs,
- o Require thorough field investigation of geologic hazards as a prerequisite to development approval, and require site work to minimize such risks.

The policies to support creative design standards and rigorous environmental analysis of developments are means of achieving a safe and high quality environment.

A. OVERVIEW POLICIES

- A-1 Support public awareness of environmental hazards by actively advising citizens of the availability of countywide and local area hazards studies, sources of hazard information and public services.
- A-2 Recognize the continuing need for engineering geologic expertise in County and local government, and develop a workable proposal to meet this need. Such a staff or consultant engineering geologist would:
 - o develop accurate detailed information on geologic hazards in areas subject to planning studies;
 - o review and approve for adequacy all geologic reports required as part of the environmental and development review process;
 - o formulate appropriate measures to mitigate geologic hazards in development.
- A-3 Continue to support scientific geologic investigations to refine, enlarge and improve the knowledge about active fault zones, areas of instability, severe ground shaking and similar hazardous conditions in Marin County.
- A-4 Structures which are necessary for the protection of public health and safety or for the provision of emergency services should not be located in any area subject to slope failure, isolation by flooding or where it could not withstand ground failure in a seismic event, unless the only alternative location would be so distant as to jeopardize the safety of the community served.

- A-5 Construction shall be located and designed to avoid or minimize the hazards from earthquake, erosion, landslides, floods and fire.
- A-6 To reduce potential damage from future earthquakes within designated fault zones, the following critical public uses should be prohibited: schools, hospitals, utility and public safety facilities, high density housing, and reservoirs.
- A-7 Steps should be taken as soon as possible to minimize potential earthquake damage from existing public buildings. Such steps could include removal of hazardous structural features, structural strengthening or even building relocation. Special methods should be adopted to assure earthquake-resistant construction of critical structures such as hospitals, schools, high density buildings, bridges, overpasses and dams.
- A-8 Consider creating a Geotechnical Review Board composed of qualified engineers, architects, geologists, seismologists, and relevant County officials to formulate, direct and define the procedures proposed herein.
- A-9 Consider developing a method whereby prospective property owners can be informed of potential safety hazards.
- A-10 The health and safety of all members of the public, including people with disabilities, should be protected during and following a disaster, through safety measures at places of employment, residence, and public gatherings.

B. SEISMIC HAZARD

Ground Rupture Policies

- B-1.1 The Alquist-Priolo Special (Seismic) Studies Zone Act shall continue to be implemented by the County. Every effort should be made to inform applicants early in the project review process of the existence of known fault traces which might affect their property, site development and design.
- B-1.2 No structure for human occupancy, or which will imperil structures for human occupancy, public or private, shall be permitted to be placed across the confirmed (through geologic investigation) trace of an active fault. However, neither this policy nor policy B-1.4, following, shall be interpreted as being more restrictive of single-family residential construction than the Alquist-Priolo Act.

It is assumed that the area within fifty (50) feet of an active fault is underlain by active branches of that fault unless and until proven otherwise by an appropriate geologic investigation.

Implementation

Procedures already exist to implement the above policies. The planning/building staff checks Special Studies Zone parcel overlays and determines the applicability of Alquist-Priolo Act. Applicant may then be required to submit site investigation report by a registered geologist. A consulting geologist on County retainer evaluates submitted geologic reports for adequacy and accuracy of active fault trace locations from which

Department of Public Works staff concludes project may or may not proceed. The applicant may appeal decision of Department of Public Works to BOS.

Direct authorization to implement the policies lies with the Marin County BOS Resolution #74-426 (implementing State Alquist-Priolo Act). Related authorization is found in the following legislation: Marin County Code Titles 11.04 (Dams); 19 (Buildings); 20.20 (Subdivision); 22.45, .97 (Planned Districts); and 23.08 (Excavation, Grading & Filling).

Further steps that can be taken include preparation of a revised list of affected properties and an explanation for public distribution.

- B-1.3 Public financing or support should be withheld from buildings within the Studies Zone where there is a confirmed fault trace unless it can be established that there is no potential for surface fault displacement or ground rupture which would injure the public investment or the fulfillment of its purpose.

Implementation

No such explicit program is in existence, however, State Legislation governing such buildings as hospitals and schools, the County Dam Ordinance and the Alquist-Priolo Act itself can accomplish most of this policy. Local authority exists in the following legislation: Marin County Code Title 11.04 (Dams); State Field Act (Schools); California Health & Safety Code (Hospitals).

- B-1.4 No new building sites should be created within the Studies Zone unless an appropriate geologic investigation establishes sufficient and suitable land area for development according to existing zoning and other applicable County ordinances.
- B-1.5 In the Special Studies Zones, applications for development or division of land into two or more parcels shall be accompanied by a geologic report prepared by an engineering geologist and directed to the problem of potential surface fault displacement through the project site.

Implementation

The procedures and authorization described in Policies B-1.1 and 1.2 can also implement the above policies.

Ground Shaking Policies

- B-2.1 The development of structures for human habitation, including residential, commercial and industrial uses, shall incorporate engineering measures to mitigate against risk to life safety in the areas identified as subject to ground shaking, at least to the extent provided by Title 19, Marin County Code.

Implementation

Building Inspection Department enforces strengthened 1976 UBC lateral design force and other requirements, as authorized by Marin County Code Title 19 (Buildings).

- B-2.2 Applications for developments proposed to be sited on landslide deposits, non-engineered fill, or bay mud shall be accompanied by a geotechnical engineering investigation directed to the problem of ground shaking and ground failure. The engineering geologist and civil engineer shall submit recommendations regarding site development, structural engineering, drainage, etc.

Implementation

This policy is being implemented by the following procedures. The Planning Department requires submission of soils and geologic reports with master plan applications, soils reports with subdivision applications, and may require geologic reports with latter. The Department of Public Works reviews submitted reports to determine adequacy of hazard mitigation in proposed development. The Department of Public Works may also require soils or geologic reports for any excavation, grading or filling. Similarly, the Building Inspection Department may require soils or geologic engineering reports for any permit application.

Direct authorization to require the above reports is found in the Marin County Code Titles 19 (Buildings); 20.20 (Subdivision); 22.45, .47 (Planned District); and 23.08 (Excavation, etc.). The Marin County Code Title 22.77 (Tidelands) also provides authority.

A further step that can be taken to assist in accomplishing this policy would be to provide reference maps.

- B-2.3 No structure which is necessary for public safety or for the provision of needed emergency services shall be built in an area subject to ground failure and consequent structural failure unless the only alternative sites would be so distant as to thereby jeopardize the safety of the community served.

Implementation

No such explicit program exists. However, State legislation governing hospitals or schools, the County Dam ordinance (Marin County Code Title 11.04) and provisions of Planned District (Title 22.47) and Tidelands (Title 22.77) ordinances can partly accomplish this policy.

Additional steps needed to implement this policy include providing reference maps and organizing review procedures of CIP, EIR, and HCDA processes to screen such structures in subject areas.

- B-2.4 The design of structures to be occupied by a large number of people, such as restaurants and hotels, shall accommodate any constraints dictated by the foundation site conditions, as determined by the engineering geologist and civil engineer conducting the site investigation. Such structures shall

be designed to be as safe as similar structures in locations not subject to excessive ground shaking or other geologic hazard.

Implementation

The same procedures implementing Policy B-2.2 are used to carry out this policy, although there is a special emphasis upon building inspection for individual structures.

Tsunami Policies

- B-3.1 No structures necessary for public safety or the provision of needed emergency services should be located in any area subject to tsunamic inundation, unless the only alternative sites would be so distant as to thereby jeopardize the safety of the community served.

Implementation

No such explicit program exists. The County can however utilize general EIR procedures to partly accomplish this purpose.

- B-3.2 In locating public safety structures, on-site consideration should be given to placement of persons within the range of a tsunami. Improvements should be designed to withstand impact from the tsunami and the debris it will carry. These improvements which could become dislodged or detached (docks, decking, floats, vessels) should be situated so that they do not become potential implements of destruction.

Implementation

This policy is already being implemented by the Planning Department through enforcement of relevant provisions governing subdivisions (Title 20.20) and tidelands developments (Title 22.77).

C. NON-SEISMIC HAZARDS

Slope Instability and Landslides Policies

- C-1.1 Projects* proposed for slopes rated 3 or 4 in stability classification (CDM&G...) shall be evaluated for stability prior to consideration of site design or use. The evaluation should include the structural foundation engineering of the actual site and should include possible impact of the project on adjacent lands. Where, in the course of land development review, it is determined to be necessary, this evaluation shall also apply to construction on existing single family lots.

*"Project" is defined as more than one single family home on an existing single family lot.

- C-1.2 In projects where such evaluations indicate that state-of-the-art measures can correct instability, the County should require that the foundation and earth work be supervised and certified by a geotechnical engineer and where deemed necessary, an engineering geologist.
- C-1.3 Known landslides and landslide-prone deposits on steep slopes should not be used for development except where engineering, geologic site investigations indicate such sites are stable or can be made stable providing appropriate mitigating measures are taken. In such cases, it must be shown to the satisfaction of the County that the risk to persons or property or public liability can be minimized to a degree acceptable to the County.

Implementation

The following procedures are in effect and serve to implement the above policies. Project sponsors submit excavating, grading or filling permit application to Department of Public Works for review. The Department of Public Works may require soils and/or geologic reports; may condition permit upon corrective work to avoid slides, etc., and must deny permit if adequate corrective work is not possible. The Department of Public Works also has similar review and approval functions regarding master plan and subdivision referrals from the Planning Department. In addition, the Building Inspection Department may optionally require soils and geologic reports and construction permits. Authorization to request and review supporting materials is granted directly in the Marin County Code, Titles 19 (Buildings) and 23.08 (Excavation, etc.). Indirect authority is also found in Titles 20.20 (Subdivisions), 22.45 (Planned Districts), and 22.82 (Design Review).

Additional steps to implement these policies include:

- o Amend Titles 20.20, 22.45, and 23.08 to specify that any required geologic reports are to be prepared by an engineering geologist.
 - o Establish procedural regulations with concurrence of Department of Public Works that, for projects on slope types specified in Policies C-1.1 and C-1.3 geologic reports shall, as a rule, be mandatory.
- C-1.4 Pacific coastal bluff and cliff development shall be in accordance with the California Coastal Commission's Statewide Interpretive Guidelines for Development Permits as adopted by the California Coastal Commission on 5-3-77.

Subsidence and Differential Settlement Policies

- C-2.1 Filled land which is underlain by compressible materials (bay mud, marsh, slough) should receive special attention during site planning; soils investigations should include borings and sufficient examination to determine the location of former sloughs and other factors which would accentuate differential settlement; the investigation should delineate those areas where settlement will be greatest, subsidence will occur, etc. and should recommend the site preparation techniques which could be employed to preclude hazard.

- C-2.2 In the areas of greater potential for differential settlement, uses should be planned which would not be damaged by such activity and which would provide minimum inducement to settlement which is detrimental to persons, property and public investigation.

Implementa9ion

The following procedures are in effect and implement the above policies. Soils reports are required for subdivisions and development plans and on filled land. These address subsidence hazards and are reviewed for adequacy by the Department of Public Works. The review may result in imposing conditions on development or denial of permit. The Building Inspection Department may also optionally require soils and/or geologic reports and condition permits. Additionally, the Environmental Protection Committee or Planning Commission must make the finding that the proposed fill, excavation or grading will not unduly or unnecessarily create a safety hazard. Authority to perform the above procedures is found in the Marin County Code Titles 19 (Buildings), 20.20 (Subdivisions), 22.45 (Planned Districts), 22.77 (Tidelands), and 23.08 (Excavation, etc.).

Additional steps needed to improve implementation of the above policies include:

- o Publicize availability of maps of filled lands.
 - o Explore possibility of refining existing mapping of filled and bay mud areas, and systematic and accessible compilation of existing drilling log data.
- C-2.3 Site preparation shall include, where necessary, several years of settlement monitoring, sufficient for detailed foundation engineering and site planning to be based on the site's particular characteristics.
- C-2.4 Surcharge may be a necessary site preparation and other mitigating measures designed to accommodate compression and settlement may be required in high risk areas where surcharge is necessary.
- C-2.5 Structural design of foundations and utilities shall recognize the potential for differential settlement and subsidence.

Implementation

The County empowered by Marin County Code Titles 24 (Development Standards), and 19 follows the procedures below in implementing the above policies. The Department of Public Works enforces development standards with particular reference to minimum elevations and ultimate settlement. The Building Inspection Department enforces building code requirements for structural design of foundations and utilities. The Department of Public Works should propose ways of augmenting its soils engineering expertise to specifically evaluate bay mud and fill development data.

- C-2.6 No structure which is needed for public safety or for the provision of needed emergency services shall be located where an interruption in service

could result from structural failure due to settlement or subsidence, unless the only alternative sites would be so distant as to thereby jeopardize the safety of the community served.

Implementation

The Department of Public Works enforces this implied standard with regard to dams (Marin County Code Title 11.4 (Dams)), but no other procedures are explicitly directed to carry out this policy at present. An implementation study should develop explicit additions to Marin County Code Titles 16, 19, 20.20, and 24.04.

- C-2.7 With respect to old or new projects where structures have not been erected, efforts should be made by public agencies to determine the extent of inadequately engineered fills to determine whether or not future risk to property or life exists. Remedial measures which are indicated should be disclosed publicly, and measures and funding of remedy should be proposed. Such measures may include de-watering of a fill, clean-out of drainage facilities, load removal from a slide, surface drainage modifications, and maintenance of drainage facilities.

Implementation

No procedures currently exist to implement this policy, except as by products of EIR's or other special studies. Implementation study should develop long-range programs possibly under aegis of expanded Environmental Protection Committee called for in the Countywide Plan.

Fire Hazard Policies

- C-3.1 The County should undertake a program of identifying and mapping extreme fire hazard areas. This should be done in conjunction with the County Fire Department and based upon criteria drawn from the State Division of Forestry as applied by the County and other local fire fighting agencies.
- C-3.2 Land development and residential building permit applications should be referred to the County Fire Department or pertinent local fire district for review and recommendation.
- C-3.3 New subdivisions and land divisions in areas identified as having extreme fire hazards should only be allowed where it is determined that adequate on or off site fire suppression water supply is or can be made available. For residential subdivisions access should be provided from more than one source where feasible. Fire trails and fuel breaks should be required to be constructed where necessary as a mitigation of excessive risk if at all possible. If development is to occur in extreme fire hazard areas, fire resistant materials, clearances from structures, and landscaping with fire resistant plants should be required.

Implementation

Planning Department in practice refers all development proposals to appropriate fire chief, and in consultation develops chief's recommendation into appropriate fire hazard condition on proposed development.

Direct authorization to implement the above policies is found in Marin County Code Titles 16 (Fire), 20.20 (Subdivisions), and 22.47 (Planned Districts-Specific Regulations). Other related authorization is provided for by Marin County Code Title 19 (Buildings).

In addition to the above efforts, the Planning Department should prepare proposed revisions to various chapters in Marin County Code Titles 20.20 and 22 to make these codes more evenly consistent with present County practice. Specifically, referral language should be added to Title 22 and standards language should be added to Title 20.20. The County should also consider contracting with the California Division of Forestry to develop fire hazard maps.

- C-3.4 The Marin County Fire Department, or other local fire protection agencies in concert with the Division of Forestry and the National Park Service, shall encourage and promote the maintenance of existing fuel breaks and emergency access routes for effective fire suppression.

Implementation

Apart from normal operational coordination, no specific procedures exist. Accordingly, a BOS resolution and input from State/Federal agencies may be in order although the County Fire Chief should recommend further on this.

- C-3.5 The Board of Supervisors and the appropriate County agencies and all other agencies having fire protection responsibilities should continue to implement the latest Uniform Fire Code.

Flood Hazard Policies

- C-4.1 Consider the use of floodplain zoning overlays in flood areas to minimize flooding hazards.
- C-4.2 Continue to promote multiple uses of areas set aside for flood retention ponding purposes (i.e. agriculture, open space, education, ecology), provided these uses are tolerant of occasional flooding.
- C-4.3 Encourage regulatory methods of flood control as distinguished from costly methods.

Implementation

The following procedures exist to implement the above policies. The Planning and Public Works Departments enforce existing floodplain zoning regulations, and inundated areas provisions of subdivision, planned districts and tidelands ordinances. Moreover, the Department of Public Works enforces the hydraulic design provisions of development standards ordinance, and the relevant sections of the Watercourse Diversion ordinance. Authorization to implement the policies is contained in the Marin County Code Titles 11.08 (Watercourse Diversion), 20.20 (Subdivision), 22.45 (Planned Districts), 22.77 (Tidelands), 22.94, .95 (Flood

Plains), 23.08 (Excavation, Grading and Filling), and 24.04 (Development Standards).

To further implement the policies, the County should:

- o maintain coordination with County Flood Control District, and
- o develop an implementation study for Policy C-4.2 as a function of expanded Environmental Protection Committee concept of the Countywide Plan.

- C-4.4 Consider adopting an implementable creek setback ordinance to reduce flood damage and protect creek environments in conjunction with the acquisition of drainage easements.

Implementation

No such explicit program exists; however, this policy is to be implemented as part of the Countywide Plan Environmental Quality element.

- C-4.5 Re-evaluate flood prone areas regarding changes to elevations as a result of off-site development or natural forces.

Implementation

Although not explicitly stated at present, the Tidelands zoning (Titles 22.77 (Tidelands)), and the Excavation, Grading and Filling ordinance (Title 23.08) implement this policy. As an additional step, the County should amend above two ordinances to explicitly cover these situations.

- C-4.6 Insure adequate capacity to handle anticipated flood runoff in natural stream channels by storing, ponding or maintenance dredging in preference to concrete channelization.

Implementation

The procedures in effect for Policies C-1.1 through C-1.3 are also used to carry out this policy.

Dam Safety Policies

- C-5.1 Dams and levees should be designed and located as to insure their safety from all maximum credible seismic events.

Implementation

The procedures outlined below implement the policy. The Department of Public Works reviews applications for dam permits where the dam size is below that requiring permits from the State of California. The completed work is also subject to detailed review prior to issuance of certificate of approval. The County is empowered to undertake the above reviews pursuant to Marin County Code Titles 11.04 (Dams); 23.08 (Excavation, Grading & Filling).

- C-5.2 Property owners within areas of possible inundation due to dam and levee failure should be notified as to timing and susceptibility to flood hazard.

Implementation

The Marin County Office of Emergency Services has compiled lists of all property owners affected by inundation boundaries shown on official Dam Evacuation maps and is preparing to notify them of this fact and emergency warning provisions. These steps are in compliance with the California Dam Safety Act, 1974, and the County of Marin's Operational Area Emergency Plan, 1974.

V. IMPLEMENTATION

Implementation of the policies of the Environmental Hazards element can be accomplished in a relatively simple fashion, as a result of the substantial body of adopted County codes which govern land use, zoning, development review, and the environmental impact assessment process. The following table presents a listing of these basic codes.

TABLE 8.1

BASIC MARIN COUNTY CODES

<u>Marin County Code</u>	<u>Section Number</u>	<u>Title</u>
16	all	Fire Code
19	all	Building Code; Incorporates 1976 Uniform Fire Code and 1976 Uniform Building Code
20 & 24	all	Subdivision Code and Development Standards
23	23.08	Grading, Excavation and Filling
23	23.06	Mining and Quarrying
11	11.04	Dam Construction and Repair
11	11.08	Watercourse Diversion and Obstruction
22	22.47	Standards for Planned Districts
22	22.73	Lot Slope Requirements
22	22.77	Protection of Tidal Waterways
22	22.82	Design Review
22	22.94 & 22.95	Primary and Secondary Floodways

The majority of the policy recommendations pertain to the review of development applications, and to guiding staff and decision-makers in the consideration of land development and hazard zones. Accordingly, there are few alterations to the existing practice of the Departments of Public Works and Planning which would be necessary to accommodate policy implementation. These alterations are indicated in the status notes on the preceding pages.

It is recommended that the first level of implementation be achieved in the following fashion:

1. Institutionalize the Environmental Hazards policies through review for possible amendment of the grading, subdivision, planned district (zoning), building code, design review (zoning), and other sections of County Code, where indicated in the preceding pages.
2. Prepare for general public availability the hazard zone delineation maps, including floodways, seismic zones, and areas of relative slope stability - enabling site plans to be designed according to the constraints of the site.
3. Consult the hazard zones maps in the conduct of the initial study pursuant to the California Environmental Quality Act.
4. Address the hazard in the preparation of Environmental Impact Reports.
5. Expand the review and control of public and private projects to include environmental hazards by the Environmental Protection Committee.

Subsequent revision to development review practice or County code should take place over time, assessing the degree of progress in the implementation program.

PART 9. ENERGY

I. BACKGROUND

A. WHAT IS THE PURPOSE OF THE ENERGY ELEMENT?

In the fall of 1979 the Marin County Board of Supervisors requested that the Planning Department prepare an Energy Element to be incorporated into the Countywide Plan. The preparation of an Energy Element was included as part of the Countywide Plan Update Program to be undertaken by Sedway/Cooke. The Marin County Energy Advisory Committee was established. Members of the Advisory Committee were selected to represent the spectrum of interest groups in the County.

The Committee's first action was to recommend that a fourth goal calling for energy conservation and the use of renewable energy be added to the three existing goals of the Countywide Plan. The Energy Element is intended to provide a policy framework for integrating Goal 4 into all elements of the Countywide Plan. In addition to providing a framework for on-going revisions to the Countywide Plan, the primary purpose of this element is to establish the technical rationale and guidelines for saving energy and increasing the use of renewable energy sources.

In order to develop an Energy Element that meets these needs, a series of technical reports were prepared by Sedway/Cooke. These are intended to provide: 1) technical support for the policies in the element; 2) documentation for specific implementation programs; and 3) an informational reference for residents and city governments on how to save energy and increase their use of renewable energy sources.

Local energy planning is often characterized in terms of two approaches. The first approach is to implement a series of action programs, following the lead of other local jurisdictions. The second is a comprehensive planning approach which entails the preparation of an energy element as part of the General Plan.

In the first approach, typical programs include the adoption of ordinances to require that the thermal efficiency of existing structures be upgraded, that standards affecting new construction be modified to better address local climatic conditions, that solar water heating be required in new and/or existing structures, and that solar access to existing or potential solar collectors be provided and protected. Many jurisdictions throughout California have adopted such programs, including San Diego County, Santa Barbara County, Santa Clara County and a variety of cities. Many other localities, including cities and towns in Marin County, are considering similar programs.

In the second approach, an energy element is typically prepared as part of the comprehensive planning process to establish a policy framework to guide all local actions as they relate to energy use. Obviously, both approaches are needed in

order to expedite energy savings and to maximize long-term savings. The Marin County Energy Element recommends that the action programs currently being adopted by cities and counties throughout California be undertaken immediately. But it also goes much further to identify ways in which energy can be saved in all areas of activity in Marin County and to recommend implementation measures that can be adopted by the County and by cities and towns in the County.

Generally the Energy Element and the Technical Reports identify generic policies for increasing energy efficiency. More detailed analyses and implementation techniques are provided for energy-use sectors which require the actions of individual residents or small businesses. Their energy-use patterns are similar to one another and can be addressed collectively. Appendix B informs residents of the actions they can take to reduce energy use and identifies implementation measures local government needs to take to facilitate or encourage those actions.

In contrast to individual residents and small businesses, the energy use patterns of governmental agencies and large-scale energy users in the private sector differ significantly and are far more complex. And, unlike individuals and small businesses, these users have the technical and economic resources needed to address opportunities for increasing energy efficiency in-house. Moreover, the energy inefficiency of large-scale users, both private and public, is being addressed on an individual basis by PG and E in its energy conservation programs.

Governmental and quasi-governmental agencies, e.g., school districts, water district and transit district, have to evaluate their own opportunities for increasing energy efficiency. It is beyond the scope of an Energy Element to do that for them. Each agency can and should conduct an energy management study to evaluate its energy use patterns and to identify and implement measures for increasing energy efficiency.

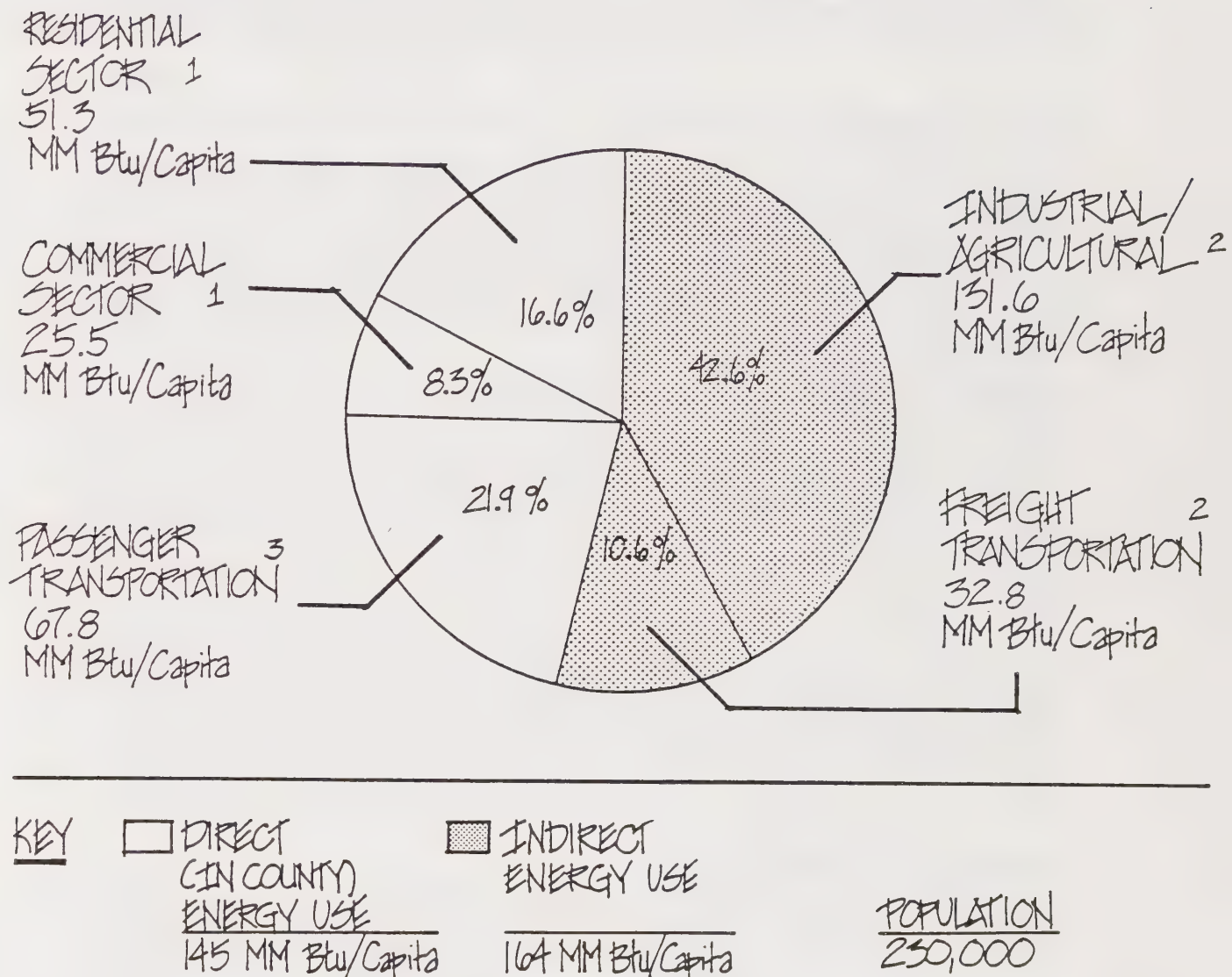
The technical reports have been reviewed by the Advisory Committee and widely distributed to County residents. The Advisory Committee has prepared two Special Reports summarizing its findings and recommendations derived from the technical reports.

B. DEFINING THE ENERGY PROBLEM

Like each new area of concern that demands the attention of local government, the energy field requires an understanding of a new body of information. Basic definitions and concepts need to be clarified in order to define the problem and to identify solutions to it.

Energy is required for all activity. Energy is needed to supply food, clothing and housing as well as to operate that housing and to provide transportation. All categories of energy use should be considered in a local comprehensive energy plan because all of them can be reduced by actions at the local level. Figure 9.1 depicts total energy use per capita in Marin County. It provides a basis for describing the fundamental concepts related to the local energy problem.

Figure 9.1 PRIMARY NON-RENEWABLE ENERGY USE
MARIN COUNTY, 1978



DATA SOURCES:

- 1 PGandE (Excludes hydroelectric power which provided 19.92% of PGE electricity in 1978)
- 2 Nationwide Average
- 3 Sedway/Cooke - using data from Bob Harrison, Transportation Consultant, and EPA average passenger vehicle efficiencies.

Direct and Indirect Energy

Energy use depicted in Figure 9.1 includes: 1) the energy consumed directly within the County in the residential, commercial and transportation sectors, ie. direct (in-County) energy use, and 2) the energy used to produce goods that are imported into the County, i.e., indirect energy use. Since Marin County contains very little industry or agriculture, most of the energy used to manufacture the goods and to produce the food that Marin County residents consume is used elsewhere and is embodied in the goods that are imported into the County. More than 50 percent of the energy consumed by Marin County residents is embodied in goods imported into the County. The shaded portion of Figure 9.1 represents indirect energy use, while the unshaded portion represents direct (in-County) energy use.

Primary, Delivered and End Use Energy

Figure 9.1 shows total primary, nonrenewable energy use in Marin County. Primary energy includes the energy used to convert fuel into electricity and the energy that is lost in the transmission of electricity to its users. When production and transmission losses are excluded, energy consumption is referred to as delivered energy, i.e., the energy actually delivered to the consumer to meet his or her end-use demand. The end-use demand is the energy actually required to accomplish a given task.

For example, to heat a well designed, average-sized single family house in Marin County would require about 12.25 million British thermal units (Btu) of end use energy. A natural gas furnace with an efficiency of 70 percent would consume 17.50 Btu of delivered energy to provide the required end-use energy. Of that 17.50 Btu, 5.50 Btu would be lost to the outside environment through the exhaust system. Production and distribution of natural gas do not have to entail any significant loss of energy; therefore, primary energy would also amount to 17.50 Btu.

Conversion of delivered electricity into end-use energy is more efficient than conversion of natural gas, achieving an efficiency of about 95 percent. Thus, 12.90 million Btu of delivered energy would be required to provide the needed end-use energy. In contrast, the process of producing that electricity from coal or oil and of transmitting it to the consumer is only about 32 percent efficient. Therefore, 40.30 million Btu of primary energy are required to heat the house electrically.

Renewable and Nonrenewable Energy

In the above example, the needed end-use energy was derived from nonrenewable energy sources. Most conventional energy, with the exception of hydroelectric power is derived from nonrenewable sources. By definition, the supply of nonrenewable energy sources is finite. Nonrenewable energy sources include oil, natural gas, coal and uranium.

End-use energy can also be provided by renewable energy sources. Renewable energy sources consist of energy derived directly or indirectly from the sun, i.e., sunlight, wind, biomass (plant material) or moving water. In contrast to nonrenewable energy sources, these supplies cannot be depleted.

Because nonrenewable energy sources, along with other nonrenewable resources, will ultimately run out, it is important to use them as efficiently as possible today to construct an energy supply system that can rely on renewable energy sources in the future.

Figure 9.2 shows direct energy consumption by energy-use sector for 1978. It indicates, for each sector, the form of energy consumed, i.e. natural gas, gasoline or diesel fuel or electricity. Production and transmission losses from electricity production and transmission are included. No losses are included for the 20 percent of the electrical supply provided by hydroelectric power since hydroelectric power is a renewable energy source.

Imported and Locally Available Energy

All indirect energy is imported into the County. At the present time, direct energy is also imported. With the exception of off-shore oil, Marin County has no conventional nonrenewable energy sources within its boundaries. However, it does have an abundant supply of renewable energy sources, primarily sunlight and wind. The use of renewable energy sources available within the County will reduce the amount of money that is exported out of the County and, to a large extent, out of the United States. In 1980, each individual in Marin County spent about \$820 for direct energy consumed or \$192 million for the entire County. Most of that money was exported to locations outside of California where the energy is produced.

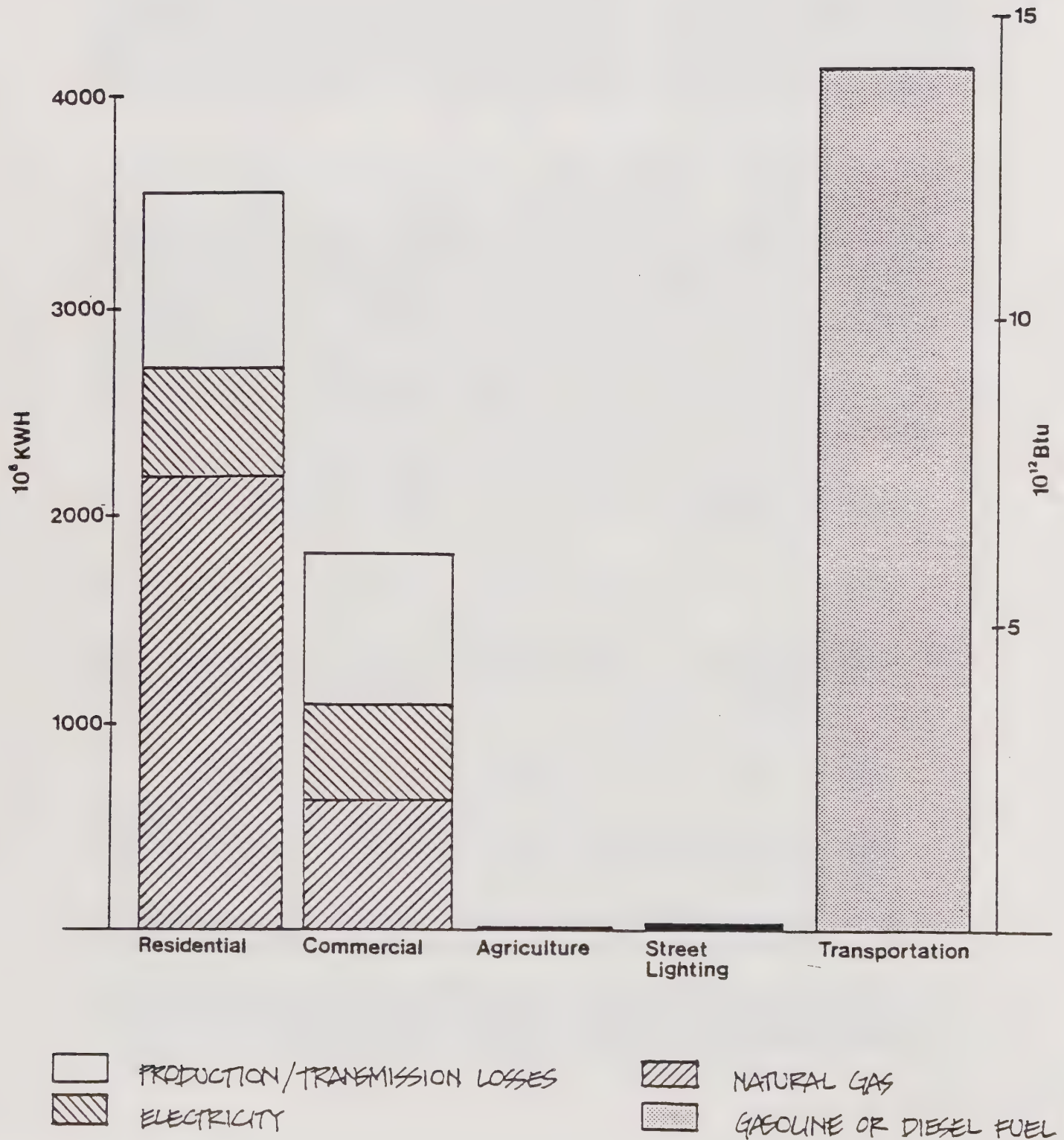
C. WHY IS IT NECESSARY TO SAVE ENERGY AND USE RENEWABLE ENERGY SOURCES?

1. Marin County is presently almost totally dependent on imported energy sources.
2. With the exception of a small portion of the electricity supply provided by hydroelectric power, those energy sources are nonrenewable and primarily oil and natural gas.
3. The future availability of oil and natural gas is uncertain in the near term and will be entirely unavailable or in short supply in the long-term future.
4. Most alternative nonrenewable energy sources carry with them environmental impacts and health and safety hazards that will reduce the quality of life in the United States.

In Marin County those impacts may occur as a result of the proposed program to extract oil from the outer continental shelf (OCS) along the coast.

5. Continued reliance on nonrenewable energy sources means an increase in the cost of energy and products to the consumer. Residents on fixed and low incomes will be most adversely affected by cost increases.

Figure 9.2 DIRECT ENERGY USE
IN MARIN COUNTY 1978



D. WHAT IS THE ROLE OF LOCAL GOVERNMENT IN SOLVING THE ENERGY PROBLEM?

Marin County cannot simply rely on federal and state government and the private sector to solve its energy problem for several reasons:

1. Private industry and regulatory agencies most directly influence the supply of energy from nonrenewable sources. It is far more difficult for them to affect the way individuals use energy. However, the most significant and rapid savings can be made in the way energy is used, especially in the short-term future.
2. The state government has influenced energy use in buildings to a limited extent and the federal government is attempting to do the same. However, their roles are limited because the changes they require must, for the most part, be implemented by individuals and local governments. Generalized regulations from the federal or state government will always have to be refined to fit the energy use patterns and implementation processes available in each locality. That refinement will have to be undertaken by local government.
3. Marin County's present and future energy use patterns are distinct from statewide and national averages as are its political and regulatory processes. As a result opportunities for saving energy in Marin County are different from those anywhere else.
4. Similarly, the availability of renewable energy sources in Marin County is different from that in any other area of the state or country. In fact, the availability of renewable energy sources varies significantly within the County. As a result the opportunities available for using renewable energy in Marin County are unique.
5. Local governments within the County influence land use patterns, building types, and construction practices. They can directly facilitate development patterns that use energy efficiently.
6. Another major determinant of energy use—in fact, the most important one—is individual behavior. Because local government is closer to people than other governmental levels, it is in a better position to encourage changes in individual energy-use patterns.
7. In the event of an energy shortage, the consequences will have to be dealt with at the local level. The federal government will require that fuel be rationed. But, the local infrastructure—public transportation, proximity of shopping centers to homes, etc.—will determine the extent to which rationing disrupts the lives of residents.
8. Efforts by local units of government to develop renewable energy resources (i.e., solar municipal utilities, wind power utility, etc.), should be encouraged and supported.

E. WHAT IS THE ROLE OF THE INDIVIDUAL IN SOLVING THE ENERGY PROBLEM?

Fifty percent of the energy consumed by Marin County residents is used within the County for building operations and transportation. That energy use can only be reduced through actions taken by individuals—as homeowners or as representatives of business, corporate or governmental organizations. The other 50 percent is consumed by individuals in the form of manufactured and agricultural goods. Individual consumption patterns can affect this energy use.

Local government can encourage and even mandate energy efficiency; but, unless there is an underlying commitment throughout the County, government's efforts will produce few results. Consequently, the foremost objective of the County in pursuing a sustainable energy future is to inform residents of the need and opportunities for energy savings. This Energy Element and its technical appendices are intended as a major step toward that objective.

F. HOW MUCH ENERGY CAN BE SAVED BY ACTIONS AT THE LOCAL LEVEL?

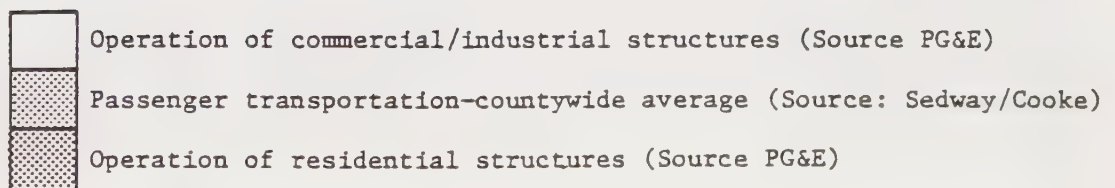
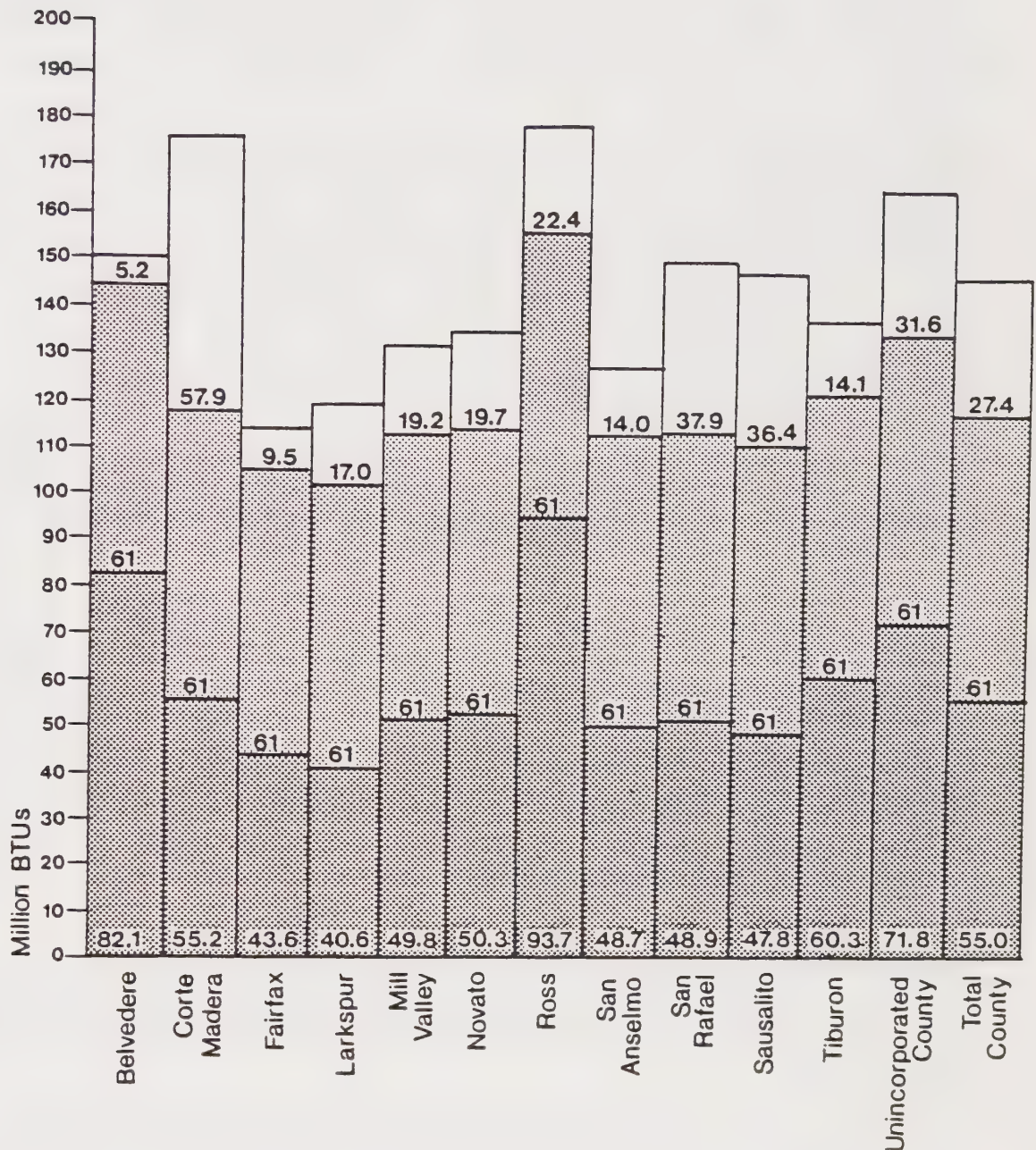
Residents of Marin County can influence indirect energy use to some extent (see Appendix C), but they have much more control over the energy that they consume directly within the County. Appendix B contains an analysis of how energy use in each of these energy-use sectors can be reduced. That analysis demonstrates that Countywide direct energy consumption can be reduced by 65 to 70 percent by the year 2000 through the use of measures that are cost-effective for individual consumers. Each action saves a small portion of the total energy use, but cumulatively the savings are dramatic.

Figure 9.3 shows per capita direct energy use on a city-by-city basis and for the unincorporated portion of the County. Values for energy used to operate residential and commercial structures were obtained from PG and E for each city. Energy used for passenger transportation reflects countywide per capita energy use since statistics are not available on a city-by-city basis.

In order to achieve the potential savings identified in Appendix B, each jurisdiction would have to initiate a program to achieve the goal of a sustainable energy future.

Per capita residential energy use on this graph can be used to compare the relative energy efficiency of jurisdictions. The highest per capita energy user is Ross. The lowest per capita energy user, Larkspur, consumes less than 50 percent of the residential energy used by Ross. Commercial/industrial energy use cannot be compared in the same way. Commercial/industrial energy use in 1978 reflects the location of facilities used by all Marin County residents; thus, the principal energy users are Corte Madera, San Rafael and Sausalito, where major commercial facilities are located, and the unincorporated county, which contains more industrial facilities than incorporated jurisdictions. Residents throughout Marin County benefit from these facilities. In establishing an energy use goal on a city-by-city basis, the countywide average of 27.4 million Btu per capita should be used for the commercial/industrial sector.

Figure 9.3 ANNUAL DIRECT USE OF PRIMARY, NON-RENEWABLE ENERGY PER CAPITA IN MARIN COUNTY JURISDICTIONS, 1978



NOTE: Population distribution based on housing unit distribution and household size (2.54/unit) from Marin Countywide Plan Housing Element, 1979.

G. WHY NOT RELY ON ECONOMIC PRESSURES TO MOTIVATE PEOPLE TO USE ENERGY EFFICIENTLY?

Reliance on economic pressures is a primary aspect of the Energy Element's approach to energy efficiency. No energy efficiency measures will be required unless they are clearly economical for the individual. Appendix B documents the cost-effectiveness of various measures and will be used as a basis for implementation. Education and incentives will be relied on as much as possible.

In many cases, government action is needed simply to enable the individual to respond to economic pressures. For example, inflexible subdivision regulations can make it difficult to orient all houses for solar heat gain. To enable the developer to respond to the growing consumer interest in energy efficiency and to the State Solar Rights Act which requires energy-efficient subdivision designs, the flexibility of regulations should be increased to accommodate energy-efficient design. In addition, local government can encourage energy-efficient design by assisting developers throughout the permit approval process.

Local governmental action can also facilitate energy efficiency. For example, a major obstacle to widespread solar energy use is the fact that solar access is not guaranteed. How can an individual build a passive solar house or add a greenhouse to her or his current house if a neighbor's tree blocks sunlight to the south wall at the present time or will do so in the future? Local government could serve as a facilitator in such cases by developing a model solar easement and providing technical assistance to property owners and developers. (See Section III, Policy C-3 and Appendix B for a discussion of solar access.)

On a larger scale, decisions made today can affect the opportunities for energy efficiency in the future. Local government can preserve opportunities for future actions that will save energy. For example, it may not be economical to cultivate agricultural land within the County today. But, as the energy cost of fertilization, and transportation increase, it is expected to become economical to do so and can result in dollar savings for consumers in the County. The opportunity to cultivate land within the County can be preserved by County policies.

H. HOW IS THE ENERGY ELEMENT ORGANIZED?

The Energy Element first identifies and describes the new countywide planning goal. Next, it identifies policies and implementation measures designed to guide governmental action as it affects energy use. Policies with similar objectives are grouped together. Finally, it recommends implementation measures for the immediate future.

Policy Group A describes an overall approach to implementation, emphasizing initial reliance on existing implementation programs to achieve policy objectives. Policy Groups B through J identify policies according to the following categories: government and utility operations; design, construction and operation of structures; industrial processes; transportation; agriculture; energy embodied in manufactured goods; land use patterns; and centralized energy conversion processes.

For example, a policy under Policy Group B is to upgrade the energy efficiency of existing buildings. An implementation measure to achieve that objective would be an ordinance requiring the retrofit of buildings with cost-effective conservation measures at the time of resale.

Following the Energy Element itself are the three supporting technical reports covering the following topics:

1. Energy demand and supply;
2. Opportunities for conservation and solar energy use that can be implemented immediately to reduce reliance on nonrenewable energy sources;
3. Opportunities for increasing the efficiency with which goods imported into the County are used, the energy efficiency of land-use patterns, and the use of other renewable energy sources.

I. HOW DOES THE ENERGY ELEMENT ADDRESS BOTH THE ROLE OF THE INDIVIDUAL AND THE ROLE OF LOCAL GOVERNMENT?

While policies contained in the Energy Element itself identify actions that the County can take to directly influence energy efficiency, Appendices B and C identify actions that individuals, organizations and agencies would have to take to achieve the goal for countywide energy savings.

Many of the actions identified in the appendices cannot be influenced by local government except through education. There are no regulatory mechanisms by which local government can require people to drive more efficient cars or to drive fewer miles. These actions are included simply to inform individuals about the ways in which they can save energy if they choose to do so.

Most of these actions in the Energy Element require changes in the actions of individuals to increase energy efficiency. For example, programs to upgrade the energy efficiency of existing buildings must be implemented by individual homeowners, owners and users of commercial structures, and governmental agencies. Local government can offer technical assistance, economic incentives, and/or regulations to encourage them to do so.

Other actions must be implemented by local government but their effectiveness in reducing energy use still depends on individuals. For example, local government can provide bicycle paths but energy savings will be achieved only when individuals begin to use them.

J. HOW WILL THE ENERGY ELEMENT BE IMPLEMENTED?

The Energy Element itself is primarily a policy statement. It does not attempt to identify all of the implementation measures that should be adopted to achieve its policies and its quantitative energy-savings goal. Implementation programs and measures to meet that goal must evolve over time. They will have to change in

response to such factors as state and federal legislation, financing programs, technical feasibility and cost effectiveness of techniques, and community acceptability and commitment. The first group of policies in the Energy Element identifies policies that should guide the adoption of specific implementation measures.

The remaining policies relate to specific categories of energy use. Where implementation measures have been developed, they are identified. Following the policy section, the Energy Element restates those implementation measures that should be pursued in the immediate future. These recommendations are intended to provide direction to the County in its first few years of program implementation. This program should be reviewed and revised on an annual basis.

Initially, energy efficiency should be addressed through existing implementation programs and through governmental actions that facilitate reduced reliance on nonrenewable energy sources. One of the most critical actions is the development of a program to provide for the acquisition and protection of solar access where feasible. This program is essential in order to provide owners of homes and commercial buildings with the opportunity to use photovoltaic (PV) cells for electricity conversion in the near future as well as to facilitate the use of passive design and solar water heating today.

The role of the County energy coordinator and an on-going Energy Committee is essential for the implementation of Goal 4.

II. THE GOAL

With the adoption of the Energy Element a new countywide planning goal has been established:

Goal 4: Achieve a sustainable energy future for Marin County by reducing total energy demand and by replacing total dependence on nonrenewable, imported energy resources with reliance on local renewable energy resources.

That goal has been quantified:

Reduce total nonrenewable primary energy use in the County to 50 percent of current use by the year 2000.

A sustainable energy future is a future in which the energy demands of the County can be provided on an ongoing basis. At the present time the County relies on a resource base that is rapidly being depleted both in the United States and worldwide. The County's current use of energy is not sustainable, even in the short-term future. As an alternative, the County can adopt, in the words of Sim Van der Ryn, former director of the California Office of Appropriate Technology and member of the Advisory Committee, "a view of the world that says that industrialized societies ought to be using their remaining stock of non-renewable resources to build a society which can sustain itself when remaining stocks of minerals and fossil fuels can no longer be economically extracted and converted to use."

To achieve a sustainable energy future the County must first reduce its energy demand through aggressive and comprehensive conservation, particularly in the residential and transportation sectors. In addition to reducing its energy demand, the County must begin to rely on renewable energy sources for its operation. To guarantee the economic as well as energy stability of the County it should rely on renewable energy sources available within the County to an extent that it is feasible and in accord with the capacities of these resources. Renewable energy sources outside of County boundaries including wind, hydropower, and biomass can also be developed for use in the County.

Appendix B demonstrates that Marin County's current use of nonrenewable energy within the County could be reduced by 70 percent by the year 2000 through reliance on techniques that are cost-effective for consumers. The goal that has been adopted by the Marin County Energy Advisory Committee represents a 50 percent reduction in current countywide direct use of nonrenewable primary energy. That reduction can be achieved by both conserving energy and by shifting to renewable energy sources.

The relationship of this countywide goal to current and projected energy use is summarized in Figure 9.4. It shows: current energy use; energy use in 2000 as a result of population growth and assuming no savings were made; energy use in 2000 taking into account savings from the increase in average automobile efficiency nationwide from 17.5 miles per gallon (mpg) in 1980 to 27.5 mpg in 2000 (EPA estimate); energy use in 2000 taking into account the potential savings within Marin County documented in Appendix B; and finally the energy use goal adopted by the Marin County Energy Advisory Committee.

Figure 9.5 converts the countywide energy use goal into a per capita goal. This per capita goal can be compared with current city-by-city energy use (Figure 9.3) to determine the reduction in residential and transportation energy use required in order for each jurisdiction to achieve the goal. For example due to different housing characteristics, Ross would have to reduce its per capita residential energy use by 80 percent to achieve the goal, while Larkspur would only have to reduce its per capita residential energy use by 50 percent. A substantial portion of this savings will occur as a result of actions taken outside of the County, e.g., state and federal standards for building construction. However, most of the savings can only be achieved by individual actions at the local level.

The three existing goals of the Countywide Plan are:

Goal 1: Discourage rapid or disruptive population growth, but encourage social and economic diversity within communities and in the County as a whole.

Goal 2: Achieve greater economic balance for Marin by increasing the number of jobs and the supply of housing for people who will hold these jobs.

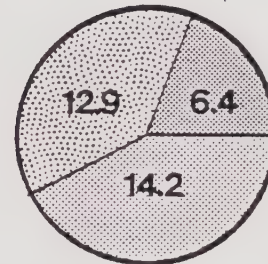
Goal 3: Achieve high quality in the natural and built environments through a balanced system of transportation, land use, and open space.

Together with the other goals of the Countywide Plan, this Goal 4 implies a decentralized, moderate technology approach to energy conservation and energy resource development with minimal environmental impacts. It implies the use of building forms that minimize operating energy requirements, siting that maximizes use of solar energy, and development patterns that minimize distances to

Figure 9.4 EVOLUTION OF THE COUNTYWIDE GOAL FOR DIRECT USE OF PRIMARY NON-RENEWABLE ENERGY IN MARIN COUNTY (10^{12} Btu per year)

1978

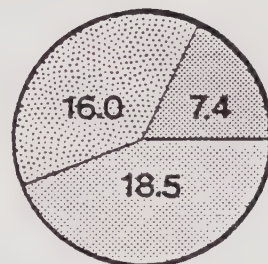
33.5×10^{12} Btu
(268 million gallons
of gasoline)



2000

41.9×10^{12} Btu
(335 million gallons
of gasoline)

No savings; population
increase from 236,400
to 296,200

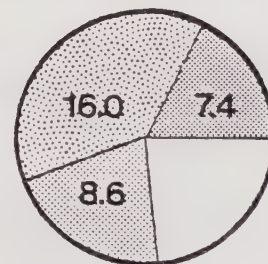


2000

HIGH

32.0×10^{12} Btu
(256 million gallons
of gasoline)

Savings from nationwide
increase in average auto
efficiency from 17.5
mpg to 27.5 mpg



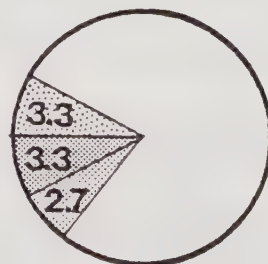
Savings
[97% of 1978]

2000

LOW

9.3×10^{12} Btu
(74 million gallons
of gasoline)

Savings documented in
Appendix B



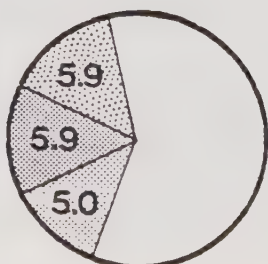
Savings
[30% of 1978]

2000

MODERATE

16.8×10^{12} Btu
(134 million gallons
of gasoline)

Goal selected by Marin
County Energy Advisory
Committee



Savings
[50% of 1978]

Residential

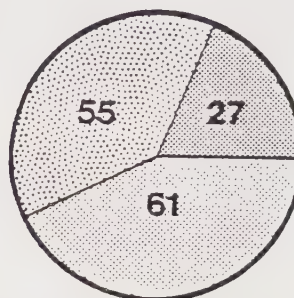
Transportation

Commercial

Figure 9.5 EVOLUTION OF THE PER CAPITA GOAL FOR DIRECT USE OF PRIMARY NON-RENEWABLE ENERGY IN MARIN COUNTY (million Btu per capita per year)

1980

143 million Btu/
capita
(984 gallons of
gasoline)

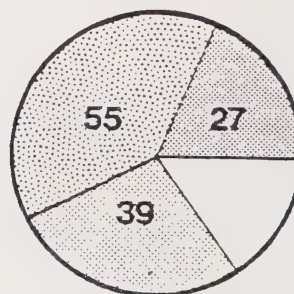


2000

HIGH

121 million Btu/
capita
(968 gallons of
gasoline)

Savings from nationwide
increase in average auto
efficiency from 17.5 mpg
to 27.5 mpg



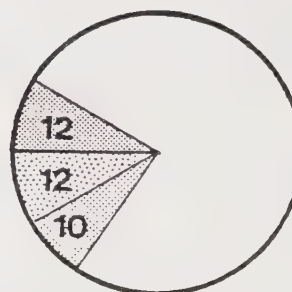
Savings [15%]

2000

LOW

34 million Btu/
capita
(272 gallons of
gasoline)

Savings documented in
Appendix B



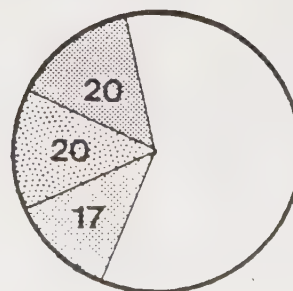
Savings [76%]

2000

MODERATE

57 million Btu/
capita
(456 gallons of
gasoline)

Goal selected by Marin
County Energy Advisory
Committee



Savings [60%]

Residential

Transportation

Commercial

employment, shopping, recreation, and transit stops. It also implies a commitment to: the development of other renewable energy sources within the County, increased energy efficiency in governmental operations and actions, and more efficient use of energy imported into the County in the form of manufactured and agricultural products.

Because energy use affects and is affected by all aspects of human activity, the commitment to a sustainable energy future needs to be reflected in all elements of the Countywide Plan and in all actions taken by the County. As a result, the policies developed to implement Goal 4 must represent a comprehensive approach to energy conservation and energy resource development which is responsive to other countywide planning goals.

III. POLICIES

A. IMPLEMENTATION

- A-1 Implementation measures should be specifically suited to the needs of Marin County.

Rationale

Implementation programs designed for one community cannot always be applied directly to another community. Consequently, programs should address the specific needs of Marin County and should be tailored to the physical, economic and socio-political characteristics of each community within the County.

The appropriateness of implementation programs will vary over time as conditions change. Factors that will affect the way in which actions should be implemented include: state and federal legislation, financing programs, technical feasibility and cost effectiveness of actions, and community values. As a result the development of implementation programs must occur as an ongoing process.

Two actions are especially important for the development of flexible implementation programs suited to the needs of Marin County: the establishment of a permanent energy coordinator position and of an on-going Energy Committee to assist the coordinator. The proposed Energy Commission would draw from the same wide range of interest groups represented in the Energy Advisory Committee. Relying in the expertise of its members, the Energy Committee would assist in the development of specific implementation programs such as conservation retrofit and solar access ordinances. In this way, the Energy Committee would expedite the work of the energy coordinator and would increase the sensitivity of implementation programs to local needs.

Implementation

- o Establish a permanent energy coordinator position within County government to implement Goal 4.

- o Establish an on-going Energy Committee to advise the Energy Coordinator.
- o Review implementation programs periodically and revise them as needed.
- o Work with local governments and organizations to coordinate implementation efforts and to tailor them to local needs.
- o Obtain demonstration grants to develop techniques for energy savings and renewable energy use that are appropriate to local needs and resources.
- o Support and assist in federal, state and utility conservation, load management, rate restructuring and renewable energy programs so that these programs respond to local concerns.

A-2 Implementation measures should provide flexibility in the means by which individuals can achieve policy objectives.

Rationale

In any single situation there are usually several solutions which achieve the same degree of energy efficiency. Thus, programs should be designed to allow one to choose the solution most acceptable to her or him.

For example, a policy to reduce energy use in a structure can be achieved by increasing insulation, by relying on solar energy, by earth sheltering a portion of the structure, by reducing the floor area per inhabitant, and/or by a variety of other approaches. A developer should be able to select the combination of techniques most appropriate to his or her needs to achieve a given reduction in energy use. Therefore, the County should:

- o Develop and implement performance as well as prescriptive standards for energy savings.
- o Encourage the use of innovative and experimental techniques by individuals to the extent that they do not adversely affect other residents or the environment.

A-3 Priority should be given to implementation measures that provide jobs and other economic benefits within the County for County residents.

Rationale

The use of renewable energy sources available within the County will provide jobs and economic benefits that will remain in the County. Reliance on nonrenewable, imported energy sources, on the other hand, will drain capital from the County which could otherwise be reinvested locally.

Specific implementation measures can be designed to provide job opportunities for unemployed County residents and to keep economic resources within

the County. The weatherization program being conducted by Marin Citizens For Energy Planning is a prime example. This program provides job training for County residents as well as income that can be spent within the County. At the same time, it saves energy for low-income residents.

The preservation and eventual cultivation of agricultural land will similarly keep economic resources in the County. For example, if feed for dairy cattle is produced in the County, dairy farmers will be able to purchase that feed at lower costs and their expenditures will benefit the local economy in addition to saving the energy required to transport imported feed supplies.

- A-4 Actions that may foreclose options for future energy efficiency and renewable energy use should be avoided.

Rationale

There are many energy-efficiency techniques and renewable energy technologies that are not yet readily available, competitive with conventional energy sources or widely supported within the community. However, these techniques and technologies will be available in the near future and can play a major role in replacing nonrenewable energy sources. It is the responsibility of local government to preserve legitimate opportunities for their future use.

For example, photovoltaic conversion of sunlight into electricity is expected to be competitive with conventional energy sources in the next ten years. To take advantage of that opportunity, buildings constructed today should provide south-facing roof area on which to locate the photovoltaics. Solar access to those roofs should be guaranteed where feasible.

- A-5 Education to encourage and facilitate individual action should be a primary means of achieving a sustainable energy future.

Rationale

The most fundamental responsibility of the County is to inform and assist residents in their efforts to increase energy efficiency. It is ultimately up to each individual, especially those who are responsible for buildings, operations and processes that establish energy use patterns, to save energy. The County can help individuals address the energy issue by providing salient information and useful advice.

Education concerning energy use should begin as early as possible in an individual's life. Energy efficiency should be incorporated into school curriculum at all levels.

Implementation

- o Monitor the County's success in meeting Goal 4 and periodically revise it to reflect new opportunities for saving energy and using renewable energy sources.
- o Publish an annual report documenting success in meeting Goal 4 on a city-by-city basis.

- o Work with local school districts to incorporate energy education into school curriculum.
- o Provide information programs to the public on energy issues.
- o Provide or support the provision of an energy advisory service for County residents.
- o Assist developers and builders throughout the permit approval process in the use of energy efficiency techniques and renewable energy sources.
- o Work with local organizations to facilitate their energy educational programs.

A-6 Planning and regulatory documents should be evaluated and revised periodically to facilitate and promote energy efficiency and renewable energy use.

Rationale

All governmental actions affect energy use to some extent. Energy efficiency should be included along with other criteria as a basis for governmental actions. The guidelines, procedures and policies that guide governmental actions should be updated as needed to respond to energy concerns.

For example, regulations affecting the development and building permit processes should be evaluated, and implementation techniques that are clearly cost-effective and relatively well-understood should be undertaken immediately. As other techniques become widely accepted, they too should be adopted.

Implementation

- o Review all planning and regulatory documents including the following and revise them if necessary to reflect the policies contained in this element:
 - General Plan and Community Plans
 - Zoning Ordinance, including use permits and variances
 - Subdivision Ordinance
 - Building Code
 - Planned Development Ordinance and Guidelines
 - Environmental Impact Review Guidelines
 - Other Relevant Special Purpose Ordinances
- o Incorporate energy efficiency and renewable energy use as criteria for design review, growth management, grant approval review and other local programs that affect energy use.

B. GOVERNMENT AND UTILITIES OPERATIONS

- B-1 The efficiency of local public agency operations should be increased by using available technical assistance and developing new assistance programs in construction, operation and maintenance, and purchasing.

Rationale

Government can provide a model for actions in the private sector. The policies and implementation strategies identified in this element that are applicable to government agencies should be undertaken immediately.

Implementation

Encourage governmental agencies and special districts to conduct energy management studies that evaluate immediate and long-term opportunities for energy savings and use of local renewable sources and to take advantage of those opportunities as they become feasible. In particular, the energy efficiency of the Public Works Department, school districts, and the public utilities should be evaluated.

- B-2 Energy efficiency and renewable energy use should be included as criteria for approving and designing capital improvement projects of all agencies and special districts.

Just as operations should be upgraded to reduce current energy use, new projects that will consume additional energy should be designed to maximize energy efficiency and to demonstrate the commitment of local government to a sustainable energy future.

For example, facilities to supplement the current water supply should be designed to minimize energy use and to use wind and small-scale hydro power.

- B-3 Innovative and experimental alternatives to conventional facilities that will increase the sustainability of government and special district operations should be investigated and implemented.

For example, alternative wastewater treatment facilities that consume less energy and water than conventional facilities and techniques should be investigated. Alternative facilities and techniques range from on-site composting toilets to marsh enhancement and containment reservoirs for treatment and the use of sludge for fertilizer as an alternative to landfill disposal.

C. DESIGN, CONSTRUCTION, AND OPERATION OF STRUCTURES

C-1 The energy efficiency of existing structures should be upgraded.

Rationale

Since relatively little new construction is planned for Marin County, saving energy in existing structures is especially important. Appendices A and B document energy use and opportunities for energy savings in existing structures. Implementation of cost-effective conservation measures constitute the largest single savings in both the residential and the commercial sectors.

Implementation

- o Adopt an ordinance to require energy audits and, if necessary, to retrofit existing dwellings with cost-effective energy conservation measures at point of resale.
- o Explore the feasibility of ordinances and other techniques to effect the retrofit of all dwellings with basic conservation measures.
- o Adopt an ordinance to require energy audits and, if necessary, to retrofit existing commercial structures with energy conservation measures at point of resale.
- o Explore the feasibility of ordinances and other techniques to effect the retrofit of all structures with basic conservation measures.
- o Develop a program to accelerate the weatherization of low-income residences and rental units.
- o Require the summertime shading of parking lots and streets in a manner that allows solar access to south walls and roofs of structures and winter heat gain to sidewalks and usable outdoor spaces.

C-2 The energy efficiency of new structures should be increased.

Rationale

It is easier and less costly to build an energy-efficient structure than to upgrade its efficiency at a later date. State and federal standards for new construction will require increased energy efficiency. It is the responsibility of local government to implement these standards. In addition, they can implement more stringent standards since state and federal standards tend to reflect what is politically possible, rather than what is technically feasible, especially with respect to passive design.

There is a variety of techniques for increasing the energy efficiency of buildings, including conventional conservation measures, tighter construction, earth-sheltering and passive design. To provide developers with a choice of how to achieve energy savings, a performance standard for energy use in new construction should be adopted.

Implementation

- o Implement state standards for energy efficiency in new residential and non-residential structures.
 - o Explore the feasibility of new residential and non-residential construction performance standards for energy use that reflect a technically and economically feasible level of energy efficiency.
 - o Require the summertime shading of parking lots and streets in a manner that allows solar access to south walls and roofs of structures and winter heat gain to sidewalks and usable outdoor spaces.
- C-3 Solar energy and other renewable energy sources should be used in all structures to the extent feasible.

Rationale

As Appendix B demonstrates, passive design and active solar energy use for water heating and for space heating can achieve substantial energy savings in new as well as existing structures. Before solar energy can be used in a widespread scale, local government actions to facilitate its use must be adopted.

The most important action that the County can take is to establish a means by which owners of passive and active solar collectors can ensure that those collectors will not be shaded by neighboring structures or trees, i.e. to protect solar access. The California State Solar Rights Act (see glossary) requires site planning for solar access in new subdivisions, establishes the "right of receiving sunlight across real property of another for any solar energy system" as a legitimate easement and allows local government to require the dedication of solar easements. The Solar Shade Control Act protects the solar access of passive and active solar collectors from future shading by vegetation. These laws do not address all aspects of solar access. For example, they do not protect solar collectors from shading by structure nor do they provide a mechanism by which conflicts among neighboring property owners can be resolved.

In addition to implementing state solar access legislation, local action could be taken to approach the issue of solar access more comprehensively. Such action could range from providing technical assistance to facilitate voluntary private action to mandating solar access protection in all situations where it would be physically and economically feasible. For example, the County could extend solar access protection to include structures and/or to establish a framework for resolving disputes among neighbors.

In Marin County, where vegetation is relatively dense in already developed areas, it may also necessary to provide a means by which property owners can acquire solar access when it is obstructed by existing vegetation. A major aspect of any such mechanism would be a means of providing compensation.

Implementation

- o Modify local regulations to eliminate barriers to solar energy use.
- o Explore the feasibility for the acquisition and protection of solar access in new and existing structures.
- o Adopt regulatory process revisions that will result in the use of passive design in new structures.
- o Prohibit natural gas or electric pool heaters as the primary heat source in new swimming pools and hot tubs or as replacements of existing pool or hot tub heaters.
- o Require that a portion of the roof tops of new structures be oriented to preserve the option for future siting of active thermal solar collectors and photovoltaic cells to reduce the demand for nonrenewable energy even further.
- o Require that solar and other renewable energy sources be used for water heating in new structures where technically and economically feasible.
- o Explore the feasibility of requiring solar water heating in all structures where technically and economically feasible.
- o Implement cost-effective solar heating for swimming pools, hot tubs, and domestic hot water.
- o Adopt guidelines regulating active solar systems to facilitate building permit processing and to promote consumer protection.
- o Adopt a program to assist in the installation of solar systems in low-income residences.
- o Adopt a program to promote the use of cogeneration in large-scale commercial projects.
- o Explore and provide information to the public on opportunities and limitations of wood burning as an energy source in Marin County, including air quality and resource availability, and establish guidelines concerning its use as a heat source, e.g. provide information to building permit applicants on efficiency ratings and safety clearances of wood stoves.
- o Explore opportunities and limitations of on-site wind energy use and establish guidelines for the use of wind machines in urban areas, including acquisition and protection of wind access rights.
- o Encourage the creation of solar municipal utilities and public development of wind energy (i.e. wind farms).

D. INDUSTRIAL PROCESSES

D-1 The energy efficiency of industrial processes should be increased.

Rationale

Although industry consumes a relatively small share of total energy used in the County, there are nonetheless significant opportunities for energy savings. The role of local government in encouraging energy efficiency in this area is not as clear as it is in the residential or commercial sectors. To a large extent the economic pressure of increasing energy costs must be relied on to motivate industry to conserve energy and use renewable energy sources.

However, local government can encourage industries to use energy more efficiently, including the use of cogeneration techniques, and can facilitate their use of renewable energy sources through guaranteed solar access.

Implementation

- o Adopt a program to encourage the use of cogeneration in industrial facilities.
- o Explore the need to coordinate industrial facility siting to maximize the opportunities for cogeneration.
- o Explore the possibility of establishing industrial design standards to increase the opportunity for future use of renewable energy sources, e.g. orientation of structures for solar energy use and provision of adequate structural support for solar collectors.

E. TRANSPORTATION

Transportation energy policies are described briefly in the Energy Element. They will be reflected in the policies and implementation measures of transportation in the Transportation Element. That element should be evaluated periodically and revised to reflect changes in the energy situation.

E-1 The fuel efficiency of vehicles used in the County should be increased.

Rationale

Passenger transportation currently consumes 41 percent of the energy used directly within Marin County. Because of increases in average nationwide vehicle efficiency that same transportation will amount to 27 percent of the direct energy use in 2000. That increase in efficiency assumes an average of 27.5 miles per gallon (mpg) for all vehicles. Since vehicle efficiencies have already exceeded 40 mpg, this estimate assumes that many people will still be driving unnecessarily inefficient cars. If everyone in Marin purchased new cars with efficiencies of 40 mpg over the next 20 years, energy consumption in the transportation sector could be reduced by another 40% so that transportation energy would consume only 18% of total energy use.

The ability of local government to influence this significant savings is limited, but educational techniques and in-house policies can achieve some savings. Appendix B documents potential energy savings.

Implementation

- o Purchase automobiles for the government fleet that achieve high fuel efficiencies.

E-2 The passenger load of vehicles should be increased.

Rationale

It is well-established that ridesharing is an effective way to save energy, especially for commuters.

Implementation

- o Encourage the use of the commute connection and of carpooling.
- o Investigate incentives for reducing the use of single-occupant vehicles for commuting, e.g. increasing Golden Gate Bridge tolls.

E-3 The number and length of trips should be reduced.

Rationale

More than 50 percent of the transportation energy in Marin County is used for local trips. Four-fifths of that is expended for shopping and miscellaneous trips. The average household makes 4 to 5 trips daily, most of them less than 5 miles per round trip. Since a car is much less efficient when the engine is cold, cutting down on the number of short trips saves more energy than the reduction in mileage alone would suggest. For example, if every household eliminates 2 trips per day by combining trips or by walking or bicycling, fuel use would be reduced by 40% while actual mileage would be reduced by only 20%. Appendix B documents potential energy savings.

Implementation

- o Develop pedestrian and bicycle access to existing local shopping/service centers.
- o Reduce automobile parking area requirements in exchange for owner supplied transit or in-lieu fee payments for public transit.
- o Encourage bicycle and pedestrian travel in everyday commuting by developing a network of safe, direct routes and by requiring secure bicycle storage facilities and other amenities such as shading of bicycle routes during the summer.
- o Encourage a reduction in auto commuting to educational institutions.

- E-4 The use of transportation modes that provide an alternative to the private automobile should be developed.

Rationale

Some of the implementation measures identified under Policy E-3 encourage alternative transportation modes. In addition, public and shared transportation modes can save a significant amount of energy as Appendix B demonstrates.

Implementation

- o Pursue the expansion of the local transit system.
- o Support the provision of vanpools and additional commuter bus service as needed.
- o Coordinate with communities and CALTRANS in the development of park and ride facilities along Highway 101 and within communities.
- o Support the development of public transit facilities to the Golden Gate National Recreation Area (GGNRA), Point Reyes, and other public facilities to reduce the use of private vehicles for recreational purposes on a local and regional basis.
- o Support the efforts of rural communities to establish innovative transportation systems.

- E-5 Renewable fuel sources for transportation should be developed and used.

Rationale

Even after energy savings identified in the above policies are achieved, a demand for transportation energy within the County will still remain. That demand can eventually be met by renewable energy sources.

Implementation

- o Follow new developments in the production of liquid fuels from renewable energy sources and promote the development of appropriate production processes within the County.

F. AGRICULTURE

Policies in the agricultural sector are intended to support the efforts of the Agricultural Extension Service and local farmers to conserve energy and use renewable energy sources. Appendix C identifies additional actions that can be taken by individuals to conserve agricultural energy.

- F-1 Agricultural activity within the County should be maintained and expanded in a manner consistent with other planning goals.

Rationale

As the energy costs of transporting agricultural products increase, the viability of agricultural activity within the County also increases. Such activity can occur at the commercial farm scale as well as at the household and community garden scales.

Implementation

- o Continue to preserve agricultural land within the County to maintain existing agricultural uses, e.g. dairy and sheep farming and grazing, and to assure future availability for more intensive agricultural uses in the future if needed.
- o Adopt a program to promote the development of household and community gardens in the County.
- o Support the Agricultural Extension Service's efforts to inform County residents concerning small-scale gardening.
- o Coordinate with and support local organizations concerned with increasing agricultural activity within the County, e.g., assist the efforts of the Marin County Agricultural Land Trust.

- F-2 The increased energy efficiency of agricultural practices and the use of local renewable energy sources should be encouraged and facilitated.

Rationale

The farmers of Marin County are currently exploring a range of conservation measures and alternative energy sources. The widespread implementation of these measures and further exploration of innovative techniques can result in substantial savings for Marin County farmers. Actions at the County level should reinforce their efforts.

G. MANUFACTURED GOODS

Manufacturing consumes the largest share of total U.S. energy use. Most of the potential energy savings can be achieved by increasing the efficiency of industrial processes and by using cogeneration and renewable energy sources. However, there are also opportunities for savings at the point of consumption. The policies identified here are discussed in more detail in Appendix C.

- G-1 The generation of waste in the County should be reduced.

Rationale

Unnecessary packaging, inefficient use of paper and other nonconserving habits produce an enormous amount of unnecessary waste. The County should promote waste reduction in its activities and throughout the County.

G-2 Manufactured goods should be reused whenever possible.

Rationale

It is often more energy-efficient to reuse manufactured goods than to recycle them. For example, while reuse of broken glass does not achieve substantial energy savings, the reuse of glass containers does. Some wine bottles are currently reused in the Bay Area. Reuse could be expanded to other types of bottles and glass containers.

Implementation

- o Support state measures and promote local measures to implement a "bottle bill" requiring return-for-deposit bottles.

G-3 Manufactured goods should be recycled when reuse is not feasible.

Rationale

Recycling programs in Marin County have begun to reduce the quantity of usable resources disposed of in landfills. However, a substantially greater reduction is possible.

As Appendix C indicates, at least 80 percent of refuse disposed of in Marin County could be reused or recycled. Food and yard wastes can be composted; paper, ferrous metals and aluminium can be recycled. Significant revenues can be obtained from recycling.

Implementation

- o Expand recycling programs in County agencies.
- o Support the expansion of existing recycling operations in Marin County.
- o Encourage the expansion of existing waste disposal operations to include recycling. (See recommendations of the Marin County Solid Waste Management Study.)
- o Avoid actions that would compete with recycling or reuse of materials such as the construction of solid waste-to-energy conversion facilities sized to process 100 percent of current waste.

G-4 Renovation should be undertaken when it is more energy efficient than demolition or disposal.

Rationale

Especially in the case of building construction, renovation is often adopted as an alternative to demolition and replacement, based on economic considerations. These economic concerns include rising energy costs for construction. In cases where a renovated structure will use less energy and cost less over its lifetime (including construction) than demolition and replacement, renovation should be seriously considered.

Implementation

- o Develop a program to promote the renovation of buildings when economically feasible and more energy efficient over the life of the building than the alternative of demolition and replacement.

G-5 Use of high-quality, long-lived manufactured goods should be encouraged.

Rationale

Generally, the materials and energy requirements of high quality goods are only slightly greater or no greater than the requirements of lesser quality items. Since higher quality goods last longer, they may consume less energy on a life-cycle basis. High quality goods, in addition to saving energy, are generally more labor intensive to manufacture. This increase in labor requirements may offset the loss of employment due to a shift from planned obsolescence to increased longevity of products.

The cost of a product over its lifetime, rather than its initial cost, should be considered in order to optimize energy efficiency and cost effectiveness.

Implementation

- o Use life-cycle dollar and energy cost analysis as criteria for purchasing by County agencies.
- o Encourage County residents to consider life-cycle dollar and energy costs.

H. NATURAL RESOURCES

H-1 Consumption of natural resources should be reduced.

H-2 The energy efficiency of extraction, processing and distribution should be increased.

H-3 Renewable energy sources should be used to extract, process and distribute resources whenever feasible. For example, wind power can be used to distribute water.

Rationale

The extraction, processing and distribution of resources consume energy. That energy use can be reduced by reducing consumption of those resources.

Water is a primary example of a natural resource consumed in Marin County. During the drought Marin County residents demonstrated dramatically the opportunities for reducing water consumption. Water conservation far exceeded the expectations of the local water agencies. Continued water conservation should be encouraged. In addition, reuse of "greywater" for irrigation should be explored by the Water District and other appropriate agencies.

Implementation

Work with North Marin County Water District and any other interest agencies to develop design review criteria for new landscapes that will enlarge the opportunities for an encourage developers to utilize water conserving landscape designs and materials.

I. LAND USE PATTERNS

- I-1 Opportunities for energy savings that are compatible with other countywide and community goals should be explored and, where possible, should be implemented.

Rationale

Appendix C demonstrates how modifications of the current land use pattern can potentially save a significant amount of energy over the next 20 years without greatly affecting the physical environment in Marin County.

Implementation

Energy efficiency will be addressed in the Land Use Element. That element should be evaluated periodically and revised to reflect changes in the energy situation.

J. RENEWABLE ENERGY USE FOR CENTRALIZED ENERGY CONVERSION

- J-1 Encourage and/or undertake the investigation and development of wind energy conversion systems for County use, both on and off shore, within and outside the County.
- J-2 Encourage and/or undertake the investigation and development of centralized solar thermal or electrical facilities for electrical conversion for County use both within and outside the County.
- J-3 Encourage and/or undertake the investigation and development of small-scale hydroelectric generation within the County.
- J-4 If conversion of municipal solid waste to energy is undertaken in Marin County, ensure that processes are designed at a scale that does not result in competition with a reduction in waste production, reuse and recycling.
- J-5 Explore the use of any other renewable energy sources that may be appropriate for Marin County.

Rationale

Appendix B shows that increased energy efficiency in all sectors and the use of solar energy to provide space heat and hot water to individual buildings could reduce energy use to 30% of current use by the year 2000. These techniques require no new technological advances and can be implemented by energy users. Other renewable energy technologies can be used to further reduce reliance on nonrenewable energy sources. Some of these technologies require large capital investments and/or centralized rather than individual facilities, e.g, large-scale wind, large-scale biomass-to-liquid-fuel or municipal solid waste (MSW) conversion, making it necessary for PG&E or a municipal agency to construct and operate them. Others

require technological advances to be cost-effective for the average user, e.g., photovoltaic conversion of sunlight to electricity. Others are at an early stage of commercialization and few experimental results are available, e.g., small-scale biomass-to-liquid fuel conversion. Processes appropriate to Marin County need to be investigated and developed commercially. Still other renewable energy uses produce environmental impacts which may limit their use, e.g., MSW conversion.

A combination of these renewable energy sources could potentially reduce Marin County's use of nonrenewable energy sources to nearly zero. The policies in this group are intended to provide a framework for future investigation by the County's Energy Coordinator. Each is discussed in more detail in Appendix C.

IV. IMPLEMENTATION

A. OVERALL POLICY RECOMMENDATIONS

1. The County Should Add the Following Energy Goal to the Three Existing Goals of the Countywide Plan.

Achieve a sustainable energy future for Marin County by reducing total energy demand and by replacing total dependence on nonrenewable, imported energy resources with reliance on local renewable energy resources.

2. The County Should Establish a Goal of 50% Reduction in Current Countywide Nonrenewable Energy Use for Marin by the Year 2000.

This would be a reduction in primary energy use from 32×10^{12} Btu in 1980 to 16×10^{12} Btu in 2000. Assuming (a) the growth projected by County and city general plans and (b) currently available cost effective conservation techniques, the Energy Advisory Committee finds that the 70% reduction in energy use by the year 2000 for Marin described in Appendix B is in fact attainable. (See Figure 9.4) However, the Committee's approach is to recommend a conservative target for Marin's first quantitative energy saving goal, with the understanding that this figure should be evaluated and adjusted on an annual basis on the recommendation of the Energy Commission and Energy Coordinator.

3. The County Should Provide Leadership in Promoting Educational Programs to Inform and Advise Marin Residents of the Opportunities for Energy Savings.

Education is clearly the single most important factor that will affect the achievement of a high degree of energy efficiency and self-reliance at the local level. As the focal point for countywide issues, the County should pay a lead role in energy conservation efforts. Recommendation #4 that follows is a first step in that direction.

4. The County Should Establish the Position of the County Energy Coordinator.

The Board of Supervisors in its recent appointment of an Energy Coordinator for 1980-81 has recognized the need to provide a central place in County government to coordinate and facilitate energy conservation activities and programs. The Committee recommends that this position be a permanent one.

5. The County Should Establish An On-Going Energy Commission.

The role of the current Marin County Energy Advisory Committee has been essential for the development of the Energy Element. A similar advisory group is needed in the future to advise the Energy Coordinator and to oversee the development of implementation techniques. This Committee will not be involved in project review but will work specifically with the energy coordinator. The proposed Energy Committee would draw from the same wide range of interest groups represented on the current Energy Advisory Committee. Relying on the expertise of its members, the Energy Committee would assist in the development of specific implementation programs such as conservation retrofit and solar access ordinances. These efforts would expedite the work of the energy coordinator and would increase the sensitivity of implementation programs to local needs.

B. SPECIFIC POLICY RECOMMENDATIONS

The implementation measures recommended here are ones that have been considered at length by the Advisory Committee. They address opportunities for reducing the amount of energy used directly within the County through conservation and on-site solar energy use. This list is not intended to be all-inclusive but to identify measures that should clearly be undertaken by the County in the relatively short-term future. Although the following policies are recommended for action in unincorporated parts of the County, the Committee also intends these concepts to represent the County's advisory position with respect to similar actions in Marin's cities and towns which can only be implemented through local ordinances and regulations.

Whatever formal energy savings programs are adopted by Marin County governmental entities, they should allow for maximum flexibility in implementation and include regular evaluation in light of such factors as changes in: (a) state legislation, (b) state of the art of conservation and solar technology, (c) cost effectiveness of conservation techniques, (d) resource availability, (d) community acceptance and commitment.

Residential Sector

Immediate Action (in order of priority).

1. Modify local regulations to eliminate barriers to conservation and solar energy use, e.g. in some cases standard setback regulations inhibit the siting of buildings for passive solar energy use; in such cases, setback variances may be allowed.

2. Investigate the feasibility of methods for resolving conflicts concerning acquisition and protection of solar access, e.g., inform developers and homeowners of the state Solar Rights Act (see glossary) and explore legal mechanisms to ensure that existing and potential solar collectors are not shaded by neighboring trees and structures.
3. Develop an ordinance to perform energy audits and, if necessary, to retrofit existing dwellings with minimum energy conservation measures at point of resale. For example, low-flow shower heads, weatherstripping, water heater insulation, and attic insulation could be required.
4. Prohibit natural gas or electric pool heaters as the primary heat source in new pools and hot tubs or as replacements of existing pool or hot tub heaters.
5. Require that new construction meet a reasonable performance standard in annual energy use.
6. Where feasible require that a portion of the roof tops of new structures be oriented in a manner that preserves the option for homeowners to locate active thermal solar collectors and photovoltaic cells in order to further reduce the use of nonrenewable energy sources in the future.
7. Require that solar or other renewable resources be provided for water heating in new construction where economically and physically feasible.
8. Require the summertime shading of streets and parking lots in a manner that provides solar access to roof tops and south walls of structures and allows winter heat gain onto sidewalks and other usable outdoor space.

Short Term Future (within five years).

1. Explore the feasibility of ordinances and other techniques to effect the retrofit of all dwellings with basic conservation measures.
2. Explore the feasibility of requiring water heating by solar or other renewable energy sources in all dwellings.

Commercial and Industrial Sectors

Immediate Action (in order of priority).

1. Modify local regulations to eliminate barriers to conservation and solar energy use, e.g. standard setback regulations that inhibit siting of buildings with respect to passive solar energy use.
2. Investigate the feasibility of methods for resolving conflicts concerning the acquisition and protection of solar access.
3. Develop an ordinance to perform energy audits and to retrofit existing structures with energy conservation measures at point of resale.
4. Require shading of parking lots and streets in a manner that provides solar access to roof tops and south walls of structures and allows winter heat gain onto sidewalks and other usable outdoor spaces.

5. Require that new construction meet a reasonable performance standard in annual energy use.
6. Where feasible require that a portion of the roof tops of new structures be oriented in a manner that preserves the option for property owners to locate active thermal solar collectors and/or photovoltaic cells to further reduce the use of nonrenewable energy in the future.
7. Require that solar or other renewable resources be provided for water heating in new construction where feasible.

Short-Term Future (within five years).

1. Explore the feasibility of ordinances and other techniques to effect the retrofit of all structures with basic conservation measures.
2. Explore the feasibility of requiring water heating by solar or other renewable energy sources in all structures.

Transportation

1. Develop pedestrian, bicycle and bus access to existing local shopping/service centers and schools.
2. Reduce automobile parking area requirements in exchange for owner-supplied transit or in lieu fee payments for public transit.
3. Expand local transit routes and service.
4. Investigate incentives for reducing use of single occupant vehicles for commuting, e.g. increase Golden Gate Bridge tolls.
5. Support provision of vanpools and additional bus service.
6. Encourage bicycle and pedestrian travel in everyday commuting by development of a network of safe, direct routes; provision of secure bicycle storage facilities; and provision of other amenities such as summertime shading of bicycle routes.
7. Investigate and implement techniques for reducing auto commuting to educational institutions.
8. Cooperate with local communities and CALTRANS to develop park-and-ride facilities along Highway 101 and within communities.
9. Encourage the commute connection and use of carpooling.
10. Investigate opportunities for increasing the energy efficiency of the ferry system.
11. Support the development of public transit facilities to the Golden Gate National Recreation Area (GGNRA), Point Reyes and other public facilities

to reduce private vehicle use for recreational purposes on a local and regional basis.

Government and Utility Sector

1. Begin to implement all recommendations for the commercial/industrial sectors and transportation as organizational policy within government so as to provide a model for the private sector.
2. As part of efforts to update local and countywide general plans, evaluate more thoroughly the opportunities for future energy savings through changes in the current land use pattern.
3. Establish an energy budget for County government. Government planning, programs and decisions should be required to undergo an energy use impact analysis with recommendations for mitigation measures where appropriate.
4. Develop and support the establishment of low cost financing programs to implement conservation actions.
5. Develop technical assistance and advisory services at the earliest project review stage to expedite approval procedures for energy conservation actions in new development.

PART 10. TRAILS

I. BACKGROUND

The Marin Countywide Trails Plan is a planning document which is to be adopted as a part of the **Marin Countywide Plan** and individual general plans for each of the cities of Marin County. Once adopted, the Plan will provide each of these jurisdictions a comprehensive guide to existing and proposed trails of city and countywide significance within Marin County. The Plan also outlines specific implementation of these proposed trail alignments.

This plan is not intended to be a trail user guide but is primarily a document for planning and securing a Countywide trail system. Where proposed trails are shown on private property, the use of such trails is subject to the owner's permission.

The total distance of all trails now open to the public in Marin county is 314 miles. This plan calls for the preservation of an additional 220 miles of trail.

The planning process is an important implementation tool as lands are proposed for development. A model ordinance providing for the dedication of trail easements and/or improvement of trails, in accordance with this Trails Plan, is a significant tool for the Cities and County to draw upon. Other methods of trail preservation include gifts, prescriptive rights, and outright purchase.

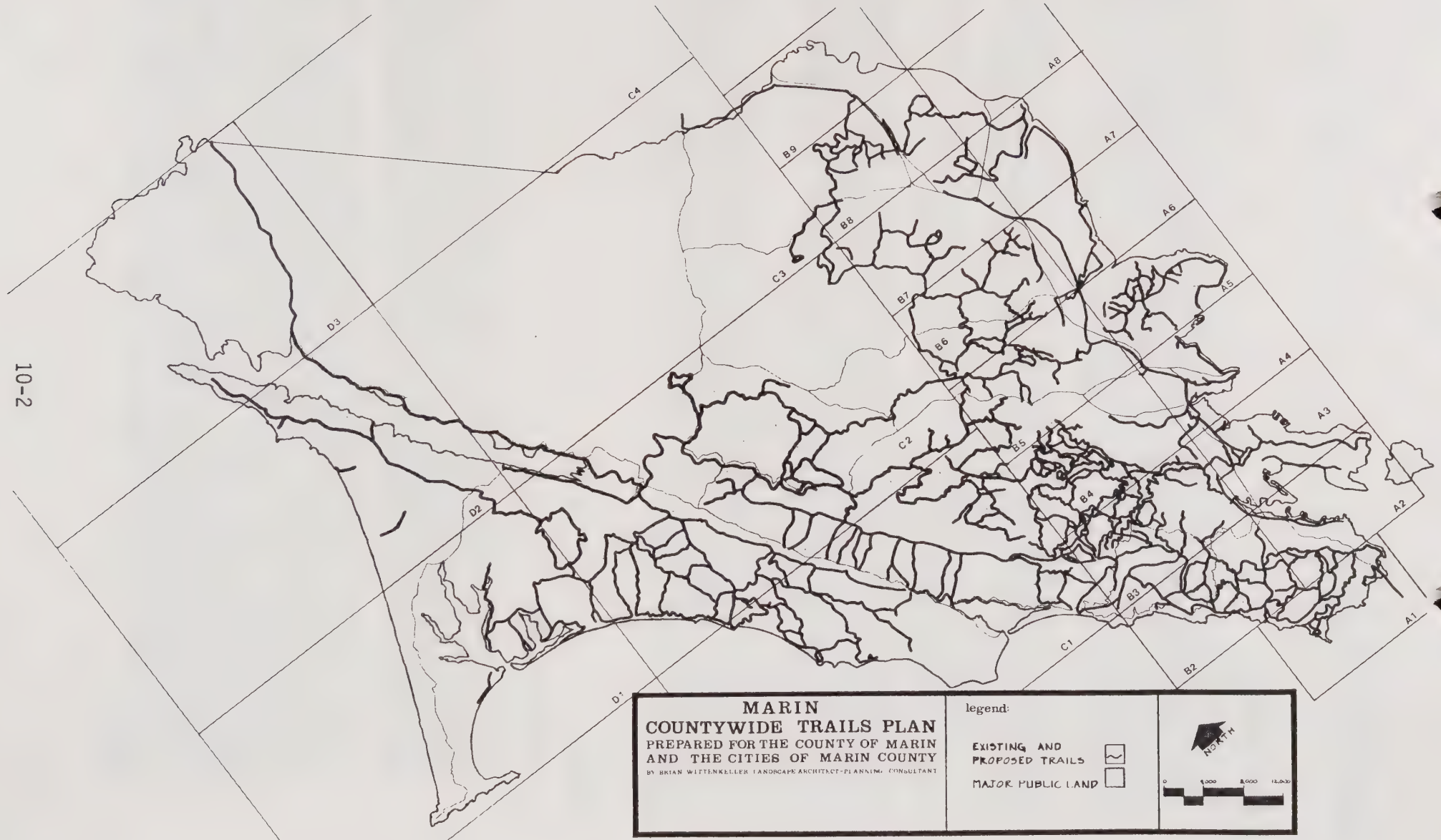
The adoption and ongoing implementation of this Plan by the County and the eleven Cities of Marin will insure that existing significant trails will not be built upon or closed without provision for public access. Marin's comprehensive system of footpaths, riding and hiking trails, and bicycle paths will someday be preserved in perpetuity.

II. POLICY

A. INTRODUCTION

Marin residents have long been known for their successful efforts in the preservation of their natural environment. Point Reyes National Seashore and the Golden Gate National Recreation Area on the Marin coastline, Mount Tamalpais and Samuel P. Taylor State Parks on the interior, to Angel Island State Park and China Camp State Park on the bayside, are permanently preserved public lands.

In 1971, the Marin County Planning Department published "Can the Last Place Last?", which described Marin's environmental characteristics and the major issues confronting the county. This document contained the preliminary **Marin Countywide Plan**, which was adopted by the County Board of Supervisors on October 30, 1973. On November 7, 1972, the voters of Marin County created the Marin County Open Space District with a large affirmative vote. Based on the guidelines and goals of the Countywide Plan, the Open Space District proceeded to preserve open space lands of less than national or statewide significance but of unique importance to the residents of the County. By 1980, more than 86,000 acres of open space had been preserved in Marin by local, state, and federal efforts.



A network of trails for pedestrians and equestrians has been historically available to the residents of Marin County. This system of trails which links local residential communities with the open space lands, water district lands and state and federal parks has made this county a special place to live. Some of these trails have been preserved through purchase and/or agreement with individual owners. However, as lands develop for residential and other uses, many trails are being threatened and, in some cases, closed to the public.

TRAILS PRESERVATION POLICY: It is the policy of Marin County that trails indicated in this plan shall be preserved for public use with due consideration of liability exposure of property owners adjacent to the trail.

The principal purpose of this Plan is to identify trails of city or countywide significance that need to be preserved for continued use by the residents of the County. This Plan also provides the basic tools for implementation. The Plan is not intended to be a trail users guide but is primarily a document for planning and securing a Countywide Trail System. Where proposed trails are shown on private property, the use of these trails is subject to the owner's permission.

This Trails Plan does not include trails of purely local significance. Planners and other users of this Plan should consult other documents of adopted local policy including specific and community plans and city general plans for details on locally secured and proposed trails. Details on existing secured trail easements can be found in the official records of the appropriate city jurisdiction or the County.

B. PRESENT STATUS OF TRAILS IN MARIN

Many of the trails in need of preservation at this time were originally constructed as fire trails and fire breaks by the Marin County Fire Department. Numerous fire trails pass through public as well as private lands, and are maintained on an ongoing basis by the County Fire Department. In some cases, old logging roads are used by hikers and equestrians and are important links in the overall trail network.

Some cities have recognized trail preservation as a planning goal and have formulated trails plans for the preservation of important trails. Other cities have formed trail committees and have begun planning.

The County adopted **The Bicycle Plan for Marin** on December 2, 1975, but this plan does not make recommendations regarding hiking and equestrian trails. Rather, it recommends safety improvements and alignments of Class II and Class III bicycle paths, where bicyclists share a designated portion of the roadway with automobiles. The Countywide Trails Plan amends the Bicycle Plan recommendations only for off-road, (Class I) bicycle paths because Class I paths are open to both bicyclists and pedestrians.

Approximately 314 miles of trails currently exist on public lands and are open to the public for their use. Thirty-one miles of bicycle/pedestrian pathways presently serve the public.

Where trails are on private property, owners have reacted in different ways. Some owners tolerate the use of their land, while others, primarily those engaged in agricultural endeavors, discourage public use of their trails and

access roads. On private trails throughout the central and western portions of Marin County where grazing and other agricultural land uses predominate, many owners allow individual or group use of their trails on a permission basis only. Various equestrian organizations annually stage long distance riding events which require permission from individual land owners.

Property owners who allow the public to use trails on their lands receive some protection from personal liability claims under California Civil Code Section 846 (see Appendix A). Nonetheless, property owners have expressed serious concern about their increased exposure to both personal injury and physical damage claims resulting from public use of trails which either cross or are adjacent to private lands. Additionally, ranchers and other livestock owners, are concerned about the potential liability for damage and accidents caused by animals released from their enclosures. Although complete immunity from claims or law suits is not possible, under existing law, such claims or suits will undoubtedly involve the public entity receiving the trail as the principal defendant.

C. TRAIL USE AND TRAIL TYPES

The following brief discussion will identify the three basic types of use presently occurring on the trails of Marin County and discuss the attributes of each use and their compatibility with one another. The three types of users are hikers, equestrians and bicyclists.

Hikers represent a large and varied group of users ranging from a serious hiker who may cover from 10-20 miles in one day to the casual hiker who may venture from his home into an open space area for a short stroll and return within a matter of minutes. Much of the hiking is done by individuals or small groups and some is done in conjunction with organized groups such as the Sierra Club, Elizabeth Terwillinger Foundation and other organizations. With the exception of some overnight hiking and camping areas in the Pt. Reyes National Seashore and GGNRA, most of the hiking is day use.

Equestrian use of the trails in Marin County is quite extensive and is done on an individual basis as well as organized group trail riding activities. With Marin's ideal climate and varied terrain most equestrian activities take place outdoors. Marin has a large number of active riding clubs and commercial equestrian facilities. It is anticipated that equestrian use of the trails will continue at a high level for the foreseeable future.

Bicycle use of trails in Marin County has until recently been more or less confined to developed Class I bicycle paths in the urbanized portions of the County and to paved roadways countywide. The popularity of the narrow-tired ten-speed bicycle has boomed over the last decade and bicycle riders are using their bikes for recreation as well as transportation.

With recent improvements in bicycle technology, mountain bikes, also known as all-terrain bikes (ATB's) or off-road bikes, are available and becoming increasingly popular. Mountain bikes, because of their strong construction, traverse a variety of terrain; many bicyclists prefer an unpaved surface. Because of the relative newness of mountain biking and the insensitivity of some new users, mixing hikers, equestrians and mountain bicyclists on the same trail can be hazardous. Mountain bike organizations are aware of the potential problems of conflicting use and are working with their members to educate

them in proper trail etiquette that will encourage acceptance of bikes on the trails in the future.

1. Types of Trails

For the purpose of this Plan, categories of trail types have been established as follows:

- a. Hiking Trails
 - b. Hiking and Riding Trails
 - c. Hiking and Bicycling
 - d. Combined Use Trails
- a. Hiking Trails are generally those trails that are safe for hikers but not suited for use by equestrians and bicyclists. Trails for hiking use only can be quite narrow, have various obstructions and may traverse up and down steep gradients.
 - b. Hiking and Riding Trails are generally trails that can be used safely by hikers and equestrians but are too narrow or steep to safely accommodate mountain bicycles together with other users. Such trails normally include substantial overhead clearance.
 - c. Hiking and Bicycling Trails refers to the Class I type multi-use path would typically have an 8-10 foot wide paved surface with jogging or hiking areas along its shoulders. Such paths are commonly used by recreational bicyclists. Equestrians use is generally not compatible unless an unpaved area of sufficient width along the path is provided.
 - d. Combined Use Trails are trails that can safely accommodate hikers, equestrians and mountain bicyclists given all-user cooperation and sensitivity. These trails generally do not exceed moderately steep gradients and offer substantial overhead clearance.

The use of mountain bicycles within the County is currently allowed on much of the public trail system but is subject to change by individual public agencies.

In the urbanized areas of the County, combined use trails may be specifically designed for such purposes and might not be a fire or protection road.

2. Regarding Mountain Bikes

Presently most of the public agencies in Marin County which manage trails allow the use of mountain bikes on their lands. Mountain biking is a relatively new sport and management policies are now being formulated by the different agencies. This plan does not address specific routes for mountain bikes as now used on public lands or proposed mountain bike connections to be acquired across private lands. The designation of mountain bike routes is an appropriate next step for the first public review and update of this Trails Plan after policy on major public lands has been established.

III. IMPLEMENTATION

A. TRAIL PRESERVATION AND IMPLEMENTATION TECHNIQUES

The following outline of methods of trail preservation is presented as a general guide and users of this plan must recognize that various agencies will be acquiring and developing trails proposed herein. The allowable uses and specific trail type will be designated by the implementing agency and the subsequent use of the trail will be subject to the agencies' use policies.

Methods of trail preservation are broken down into four general categories.

1. Gifts of Land and Easements,
2. Dedication of Trail Easements and Trails,
3. Prescriptive Right of Trail Use, and
4. Purchase.

1. Gifts of Land and Easements

The acceptance of gifts of trails and trail rights-of-way is a viable means of preserving trails for public use. Individual owners may find it to their advantage to offer a gift of a trail that is currently being used by the public. The advantages may include but not be limited to income tax benefits for the giver, elimination of maintenance on the trail by the original owner, and added security to the owner by increased or new patrolling by the accepting public agency, as well as an opportunity for personal philanthropy to benefit the public.

2. Dedication of Trail Easements and Trails

Dedication of trails and trail easements is the principal method of preserving trails as foreseen in this Plan. As presently undeveloped lands that are transversed by important trail connections are considered for development, the public entity reviewing the development proposal requires the dedication of trail easements and/or the improvement of trails in accordance with the adopted Trails Plan. The County and City Subdivision Ordinances presently contain legal authority to require amenities such as trails to be offered for dedication to the public agency. To assist local jurisdictions in strengthening and/or amending their present ordinance to include a new section on trail dedication, a model ordinance is included as "Appendix B". This ordinance can be adopted in total or used to amend existing ordinances for the purpose of effectively implementing this Trails Plan.

3. Prescriptive Rights of Trail Use

Trail preservation by prescriptive right is a method that has been utilized in the past and could be effectively utilized in the future. Basically, the law provides that when public access across private property has been unimpeded by the land owners for a period of five or more years, the public has, in fact, gained a permanent right to use this access or trail.

4. Purchase

Purchase of trail easements and trails may be necessary in some cases where, because of timing or other reasons, other methods are not practical. Outright purchase should be used as a last resort and should be carried out by official representatives of the jurisdiction making the purchase.

B. RECOMMENDED STANDARDS FOR TRAIL DEDICATION AND DEVELOPMENT

Generally speaking, the dedicated trail right-of-way needs to be wide enough to accommodate the proposed trail improvements, cut and fill slopes, and any proposed buffers or barriers adjacent to the trail. In many cases, the right-of-way will be a part of a larger open space dedication and no specific trail easement will be required.

1. Standards for Trails

This Plan identifies and designates four specific types of trails:

- a. Hiking Trails,
- b. Hiking and Riding Trails,
- c. Hiking and Bicycling Trails, and
- d. Combined Use Trails.

- a. Hiking Trails are intended for use by pedestrians and hikers only. No provisions are made for vehicular or equestrian access. In general, hiking trails will be located within a ten-foot wide right-of-way. The physical improvements of the hiking trail may vary somewhat; however, a minimum tread width of two to three feet is normally required. On some steep slopes, the tread width may diminish to 12 to 18 inches, but only for short distances.

Grades along a hiking trail can vary; however, steep grades are tiring for hikers and may create erosion problems. Grades of ten percent or less are desirable, but fifteen to twenty percent is generally acceptable for short distances. Actual trail design and construction details are not a part of this Plan. However, there currently exist comprehensive publications outlining in great detail the physical requirements of all types of trails. Three such publications are as follows:

- (1) **Trails Manual** by Charles Vogel, 1968, primarily applicable to riding and hiking trails.
- (2) **Policies and Construction Guidelines for the East Bay Regional Park District Regional Trail**, December 1975, for riding/hiking and hiking/bicycling trails.
- (3) **Planning and Design Criteria for Bikeways in California** by the State of California, June 30, 1978. This publication gives detailed design requirements.

- b. Hiking and Riding Trails are intended for use by equestrians, and hikers. Although general vehicular access is prohibited, these trails are often used by maintenance vehicles. Riding and hiking trails are unpaved and

located within a 10-20 foot right-of-way. The developed width of the trail can vary from 4 feet to 10 or 12 feet; however, where maintenance vehicle access is required, the minimum width would be 10 feet, to allow proper access and safety. Gradients for riding and hiking trails are similar to those for hiking trails. Specific design details can be ascertained from the first two above mentioned publications.

c. Hiking and Bicycling Trails

Hiking and bicycling trails are designed and intended for use by pedestrians, hikers, and bicyclists. Equestrian use is not generally compatible with bicycle use and is not permitted on the bicycle trail. In some cases, however, where no alternative exists, equestrians will be required to use adjacent trails along a common right-of-way. In such cases, the equestrian pathway should be separated from the actual bicycle path by as great a distance as possible. Ideally, a minimum of ten-foot separation should be attained.

The hiking and bicycling trail, as referred to in this Plan, is consistent with the definition of a Class I Bikeway, as defined in the State's **Planning and Design Criteria for Bikeways in California**. The minimum paved width of the bike path is eight feet and where more than modest use is anticipated, a ten-foot paved section should be constructed. In addition to the paved section, pedestrian/jogging paths should be provided on either side at one-and-a-half feet wide. The ideal improved section totals thirteen feet, which can, on level surfaces, be accommodated within a twenty-foot right-of-way. However, an additional right-of-way width may be necessary when slopes, buffers, or other improvements are taken into consideration.

It is recommended that the design guide, **Planning and Design Criteria for Bikeways in California**, be used as a reference for all hiking and bicycling trail design. Generally speaking, the maximum grade recommended for a bike path is five percent. It is desirable that sustained grades be limited to two percent. Steeper grades can be tolerated for short segments, twelve or thirteen percent for distances of a few hundred feet or less. The structural sections for bicycle paths must be individually designed, taking into account existing site conditions, drainage patterns, and so on.

- d. Combined Use Trails are suitable for use by hikers, equestrians, and bicyclists. Right-of-way and design standards for combined use trails are currently in process of formulation and will be included in a future update of the Trails and Bikeways Element of the Marin Countywide Plan.

2. Public Trail Acquisition on Agricultural Lands

At such time that lands committed to agricultural uses are planned to pass out of agricultural use, such lands shall then be reviewed for inclusion of necessary and beneficial public trail and bikeway additions and connections as part of the development review process.

3. Handicapped Access

Many trails lend themselves to use by handicapped persons. Multi-purpose pathways which accommodate pedestrians as well as bicycle riders are ideal for barrier free access and should be planned accordingly. The gentle gradients and curb cuts required for cyclists are generally satisfactory for wheelchair access. Barriers placed at entrances to pathways to prohibit entry by motorized vehicles must be designed to accommodate wheelchairs unless such use would be unsafe or cause severe management problems.

Each trail in the system should be evaluated as to its potential for handicapped access. As trails are planned and opened to the public, handicapped access should be given consideration and included where possible. Preparation of any brochures in the future indicating public trails should indicate the availability of barrier free trails for use by handicapped persons.

4. Maintenance of Trails

The responsibility for maintenance of any public trail rests with the individual agency or jurisdiction who owns the trail. In many cases, the trails used as fire protection roads are maintained by the Marin County Fire Department on both public and private lands.

Many public agencies have organized volunteer groups who carry out much of the annual maintenance on the existing trails as well as assist in the construction of new trails. The Federal, State and County Parks Department patrol and maintain the trails and land under their jurisdictions on a regular basis. The cities with fewer trails and smaller staffs generally patrol and maintain their trails on an "as needed" basis.

As new trails are brought under public jurisdiction the accepting agency should agree to maintain the trails or make provisions for a responsible entity to accept maintenance responsibilities.

Volunteer efforts would be improved on a countywide basis by the efforts of a countywide volunteer trails coordinator. Trail construction and maintenance can also be assisted through contract arrangements with conservation-oriented groups such as the Marin Conservation Corps.

C. PLAN MAPS

The Trails Plan includes the following twenty-three detailed maps which indicate existing and proposed trails throughout the County. The entire trails network is summarized on the Summary Map shown on page iv of this plan.

The three principal trail types are depicted on the maps by representative symbols. The status of the trail is also designated by variations within the symbol. Each basic trail type is broken down into proposed trail, trail right-of-way secured only, and trail open to the public. By using these graphically distinctive symbols, an individual may readily pinpoint trail locations that

require preservation. Generally, proposed trails (depicted by open symbol) are extensions of existing trails (solid symbol) and provide access to already publicly owned open space and park lands.

The network of trails is designed to provide reasonable access from existing residential areas to public recreation lands. The Plan has carefully limited the designation of new trails where they do not serve a specific purpose of access to or between public lands. In almost all cases, the proposed trails are shown along existing trails. In some cases, as development occurs on private land, the existing trails may become access roads to new development. When this cannot be avoided, new trail rights-of-way should be provided away from developed roads if at all possible.

The following chart shows the distances in miles of the various trail types. The total amount of trails of various categories already preserved and open to the public is 314 miles.

Table 1. TRAIL DISTANCES SHOWN IN MILES

	Open To Public	Right-of-Way Secured	Proposed	Sub Totals
Hiking Only	104.6 74.2%	18.1 12.9%	18.2 12.9%	140.9 100%
Riding & Hiking	178.0 60.1%	13.2 4.5%	104.8 35.4%	296.0 100%
Hiking & Bicycling	31.3 32.4	1.0 1%	64.4 66.6%	96.7 100%
Totals	313.9 58.9%	32.3 6%	187.4 35.1%	533.6 100%

The total distance of all trails now open to the public is 314 miles. This plan calls for an additional 220 miles of trail of various types to be secured and opened to the public as the land becomes available for a grand total of 534 miles of public trail. Of the 220 miles of proposed new trails, riding and hiking trails constitute 104 miles, hiking and biking trails 64.4 miles, and hiking trails only an additional 18.2 miles.

The plan calls for increasing the County's existing trail system by 70%. Accomplishing this goal will require the participation of each jurisdiction to preserve individual trail segments designated in this plan as the opportunity arises. The implementation of this plan is expected to take many years. The completion of the proposed Countywide trail system will assure access by foot, horse, and bicycle to the open lands that the people of Marin have worked to preserve.

PART 10. TRAILS

- Appendix A: Civil Code 846
- B: Model Ordinance
- C: Negative Declaration of Environmental Impact
- D: Trails Plan Maps - indicating where adopted policy applies

APPENDIX A. CIVIL CODE SECTION 846

§ 846. Permission to enter for recreational purposes

An owner of any estate in real property owes no duty of care to keep the premises safe for entry or use by others for * * * any recreational purpose or to give any warning of hazardous conditions, uses of, structures, or activities on such premises to persons entering for such * * * purpose, except as provided in this section.

A "recreational purpose," as used in this section, includes such activities as fishing, hunting, camping, water sports, hiking, spelunking, riding, including animal * * * riding, snowmobiling, and all other types of vehicular riding, rock collecting, sightseeing * * *, picnicking, nature study, nature contacting, recreational gardening, gleanng, winter sports, and viewing or enjoying historical, archaeological, scenic, natural, or scientific sites.

An owner of any estate in real property who gives permission to another for entry or use for the above * * * purpose upon the premises does not thereby (a) extend any assurance that the premises are safe for such * * * purpose, or (b) constitute the person to whom permission has been granted the legal status of an invitee or licensee to whom a duty of care is owed, or (c) assume responsibility for or incur liability for any injury to person or property caused by any act of such person to whom permission has been granted except as provided in this section.

This section does not limit the liability which otherwise exists (a) for willful or malicious failure to guard or warn against a dangerous condition, use, structure or activity; or (b) for injury suffered in any case where permission to enter for the above * * * purpose was granted for a consideration other than the consideration, if any, paid to said landowner by the state, or where consideration has been received from others for the same purpose; or (c) to any persons who are expressly invited rather than merely permitted to come upon the premises by the landowner.

Nothing in this section creates a duty of care or ground of liability for injury to person or property.

(Added by Stats.1963, c. 1750, p. 3511, § 1. Amended by Stats.1970, c. 807, p. 1530, § 1; Stats.1971, c. 1023, p. 1075, § 1; Stats.1972, c. 1200, p. 2322, § 1; Stats.1976, c. 1303, p. 5850, § 1; Stats.1978, c. 86, p. —, § 1.)

Asterisks * * * indicate deletions by amendment

BIBLIOGRAPHY OF APPENDICES & SUPPORTING DOCUMENTATION

Copies of the below-listed sources may be purchased from the Marin County Planning Department (MCPD), Rm. 308, Civic Center, San Rafael, CA 94903, phone: (415) 499-6269. In addition, these materials may be viewed at branches of the Marin County Library System.

I. APPENDICES

PART 2. ENVIRONMENTAL QUALITY

- Appendix A: Stream and Creekside Conservation Zones - City-Centered Corridor (East Marin). Madrone Assoc., July 1980.
- Appendix B: Bayfront Conservation Zone. Madrone Assoc. & Sedway/Cooke, July 1980.
- Appendix C: Bayfront conservation Zone EIR, March-May 1981.

PART 3. COMMUNITY DEVELOPMENT

- Appendix A: Summary of Land Use and Transportation Policies in the General Plans of Marin Jurisdictions. MCPD & Sedway/Cooke, Dec. 1980.
- Appendix B: Housing, Population and Employment Projections for the City-Centered Corridor. MCPD, ABAG & Sedway/Cooke, Dec. 1979.
- Appendix C: Alternatives. MCPD, MTC, ABAG, R. Harrison & Sedway/Cooke, Nov. 1979.
- Appendix D: Negative Declaration of Environmental Impact, Feb. 1982.

PART 4 TRANSPORTATION

- Appendix A: Transportation Sub-Alternatives R. Harrison, ABAG, MTC, MCPD & Sedway/Cooke, Jan. 1980.
- Appendix B: Transportation Impacts of Land Use Sub-Alternatives, R. Harrison, ABAG, MTC, MCPD & Sedway/Cooke, Feb. 1980.
- Appendix C: Environmental Impact Report, R. Harrison.

PART 5. PLANS FOR PLANNING AREAS

- Appendix A: Evaluation of the Impacts of Proposition 13, Assembly Bill 8, and Proposition 4 on Land Use Planning in Marin County. Recht, Hausrath & Assoc., Dec. 1979.
- Appendix B: Development Potential and Urban Service Capabilities in the Eastern Marin Spheres of Influence. Sedway/Cooke, Sept. 1981.
- Appendix C: Recommendations for Urban Service Areas. Sedway/Cooke, Oct. 1981.
- Appendix D: Negative Declaration of Environmental Impact.

- Appendix A: Housing Background Data, Gruen, Gruen + Assoc., Dec. 1979.
- Appendix B: Community Housing Status Report, Gruen, Gruen + Assoc., Dec. 1979.
- Appendix C: Initial Study and Environmental Impact Assessment.
- Appendix D: List of Preparers

PART 7. NOISE

- Appendix A1: Listing of Noise Levels by Distance from all Local Major Streets
- Appendix A2: CALTRAN Noise Contours for Highway 101
- Appendix B: Technical Report
- Appendix C: California Administrative Code, Title 215
- Appendix D: Environmental Impact Supplement

PART 8. ENVIRONMENTAL HAZARDS

- Appendix A: State of California, Council on Intergovernmental Relations - guidelines for local General Plans - 1973 - guidelines for Seismic Safety and Safety Elements
- Appendix B: List of significant earthquakes affecting Marin County or the San Francisco Bay Area
- Appendix C: Alquist-Priolo Special Studies Zone Act of 1972 as amended and policies and criteria pertaining thereto
- Appendix D: California Dam Safety Act and National Flood Insurance Act
- Appendix E: Marin County Code Section 11.08 Obstructions of Watercourses and Marin County Code Section 22.77 "Protection of Tidal Waterways"
- Appendix F: Marin County Office of Emergency Services, "DAMEVAC Programs and Procedures"
- Appendix G: Marin County Office of Emergency Services, "Marin Operational Area Emergency Plan - Assumptions and Operational Concepts"
- Appendix H: Marin County Code Section 23-08. Excavation and grading ordinance
- Appendix I: Environmental Hazards Data
- Appendix J: EIR Supplement

PART 9. ENERGY

- Appendix A: Energy Demand and Supply. Sedway/Cooke, 1980.
- Appendix B: Opportunities for Energy Conservation and Solar Energy Use. Sedway/Cooke, 1980.
- Appendix C: Opportunities for Additional Energy Savings and Renewable Energy Use. Sedway/Cooke, 1980.
- Appendix D: Negative Declaration of Environmental Impact.

PART 10. TRAILS

- Appendix A: Civil Code 846
- Appendix B: Model Ordinance
- Appendix C: Negative Declaration of Environmental Impact
- Appendix D: Trails Plan Maps - indicating where adopted policy applies.

II. SUPPORTING DOCUMENTATION

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An Evaluation of Local Plans, MCPD, BALTRANS Program Phase I, 1971.

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Housing Element, Gruen, Gruen & Associates for MCPD, December 1979.

RELATED PLANS AND AMENDMENTS

The documents listed below, based on the Marin Countywide Plan, provide specific policy guidance in coastal and community plan areas. Copies of these documents may be purchased at the Marin County Planning Department, Rm. 308, Civic Center, San Rafael, CA 94903.

I. COASTAL

Marin County Local Coastal Program, Unit 1, Malcolm Sproul and Allen Meacham for MCPD, December, 1980.

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II. COMMUNITY PLANS AND POLICIES

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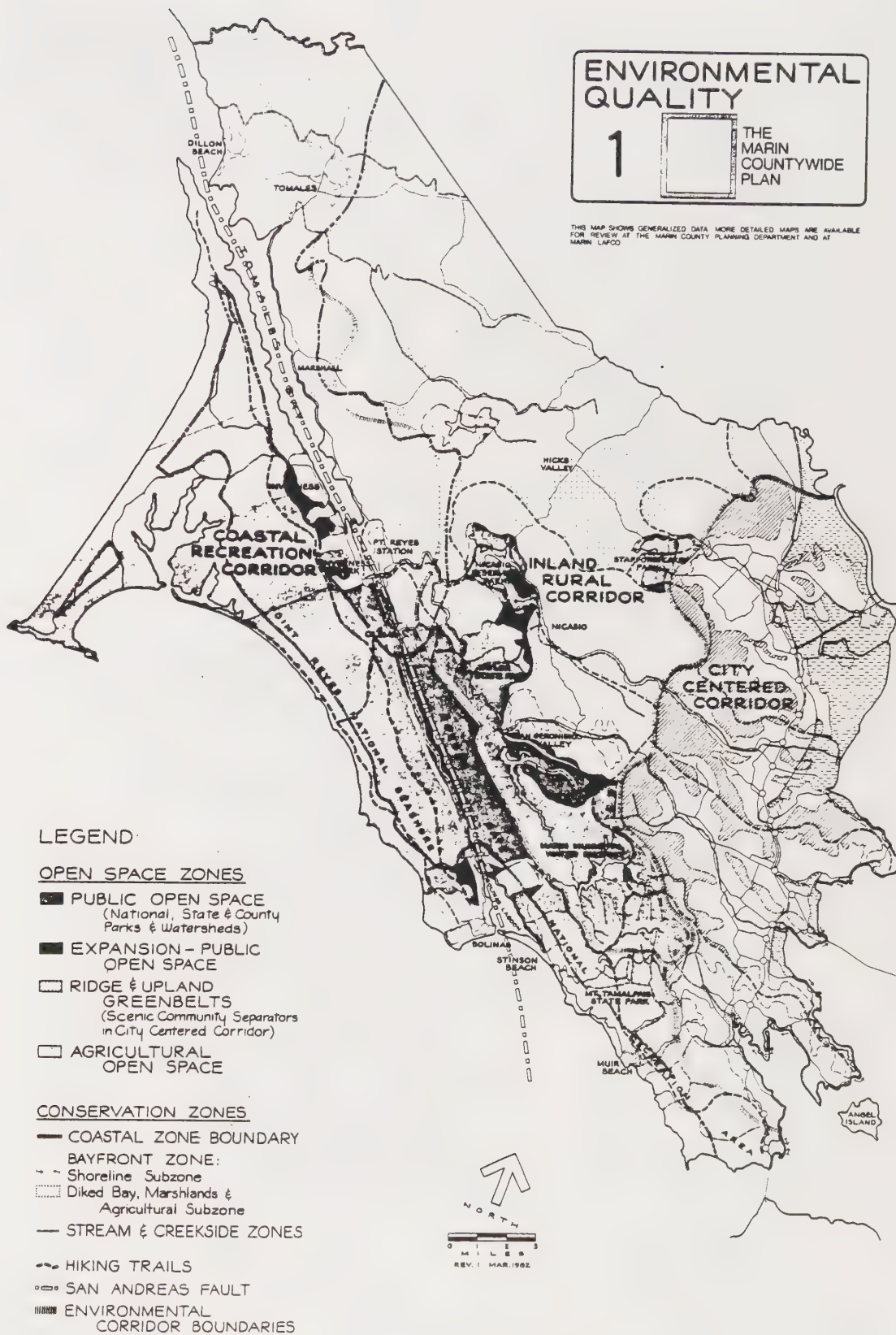
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1

**THE
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PLAN**

THIS MAP SHOWS GENERALIZED DATA. MORE DETAILED MAPS ARE AVAILABLE FOR REVIEW AT THE MARIN COUNTY PLANNING DEPARTMENT AND AT MARIN LAFCO.

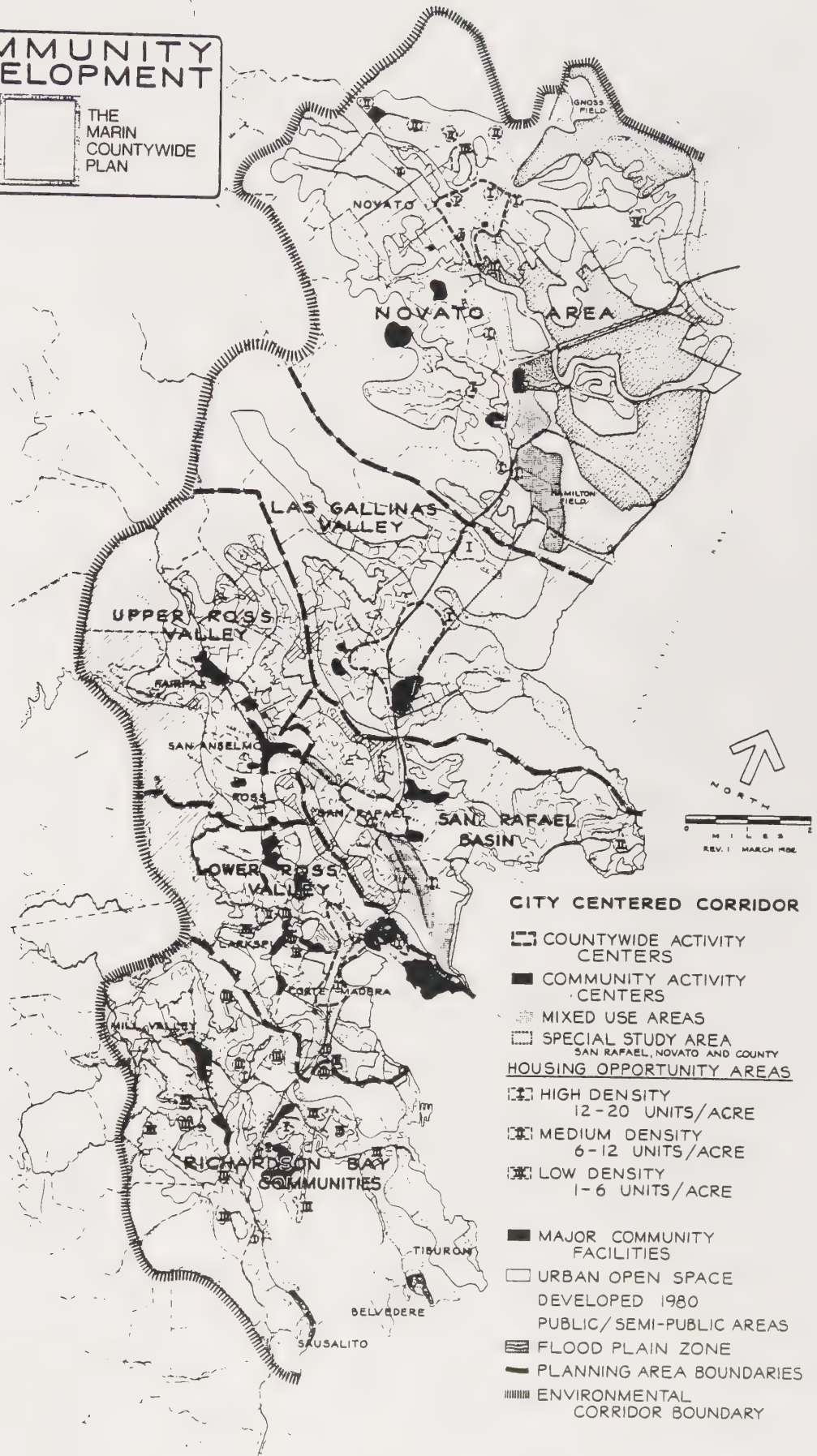


COMMUNITY DEVELOPMENT

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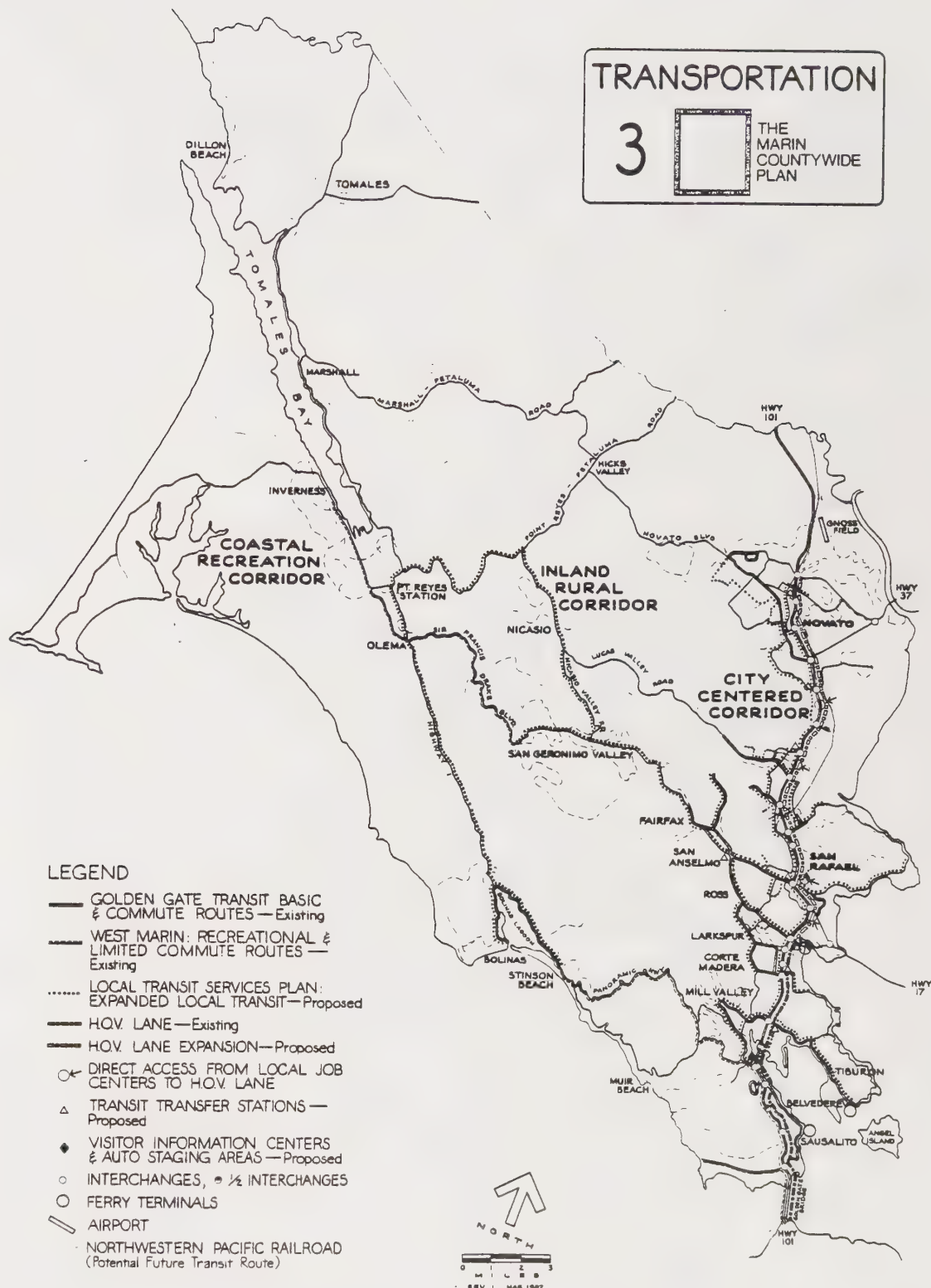
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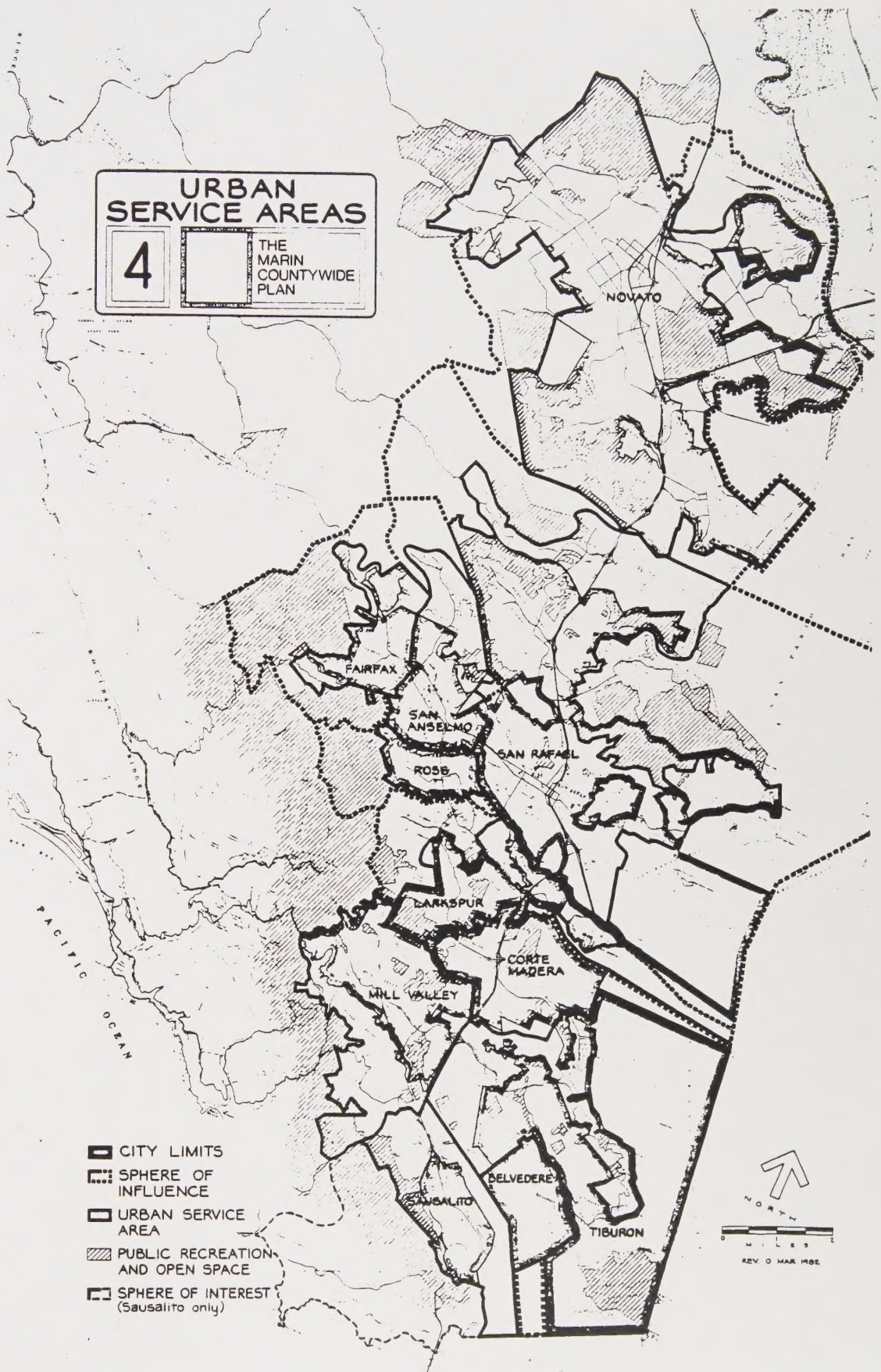
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URBAN SERVICE AREAS

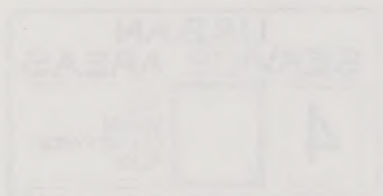
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